**Research Strategy/Progress Report**

The current study has developed and tested an effective Disease Risk Reduction (DRR) intervention, titled *WaySafe*, for HIV and other infectious diseases and currently is finalizing an evaluation of its uptake through an implementation strategy (R01DA025885, funded by the National Institute on Drug Abuse, National Institutes of Health). The specific aims of the project include: (1) developing and testing a manualized DRR planning and decision-making strategy that relies on cognitive tools and focuses on risk behaviors during community re-entry, and (2) examining the process of intervention implementation that relies on organizational assessments as the focus of analyses of implementation progress in a network of criminal justice (CJ) systems.

In the first phase of the current project, *WaySafe*, a manualized DRR planning and decision-making intervention was developed and tested. The intervention utilizes a visual-spatial rather than traditional didactic communication approach (Dansereau & Simpson, 2009) that focuses on risk behaviors during community re-entry and addresses attitudes and behaviors related to risks for contracting HIV or other infectious diseases. Key components include problem recognition, commitment to change, and strategies for avoiding behavioral risks of infections. The interview is based in part on Fishbein & Ajzen’s (1975) and Ajzen & Fishbein’s (1980) Theory of Reasoned Action which posits that behavior will be most closely associated with behavioral intentions. Motivational and planning sessions are designed to be delivered near the end of institution-based substance abuse treatment, expanding beyond the didactic HIV/AIDS education currently provided. A second phase of the project has examined the process of intervention implementation among **25** **correctional and community programs (serving criminal justice clients) in 6 different states**. In this phase, a total of 73 counselors and staff have attended *WaySafe* train-the-trainer workshops. Counselors and staff from all participating facilities (N=637) in both project phases also were asked to complete the Organizational Readiness for Change Survey (ORC; Lehman et al., 2002; Greener et al., 2007).

One of the key components of *WaySafe* is the use of TCU Mapping-Enhanced Counseling, an evidence-based graphic representation strategy used to visually enhance the counseling process and as part of the presentation and implementation of TCU intervention manuals (Dansereau et al., 1993; Dees et al., 1994). **It is included in** **SAMHSA’s National Registry of Evidence-based Programs and Practices (NREPP)**, and a conceptual overview of this approach is published in *Professional Psychology: Research and Practice* (Dansereau & Simpson, 2009). In brief, Mapping is an effective strategy for increasing client motivation, engagement, participation, and retention in treatment by promoting more positive interactions with other clients and treatment staff. It facilitates communication, memory, and problem-solving during counseling sessions, and also helps document progress both within and across sessions (see Dansereau, 2005, for a review). Mapping approaches have been shown to help clients and counselors examine treatment-related issues (Dansereau & Dees, 2002; Dansereau, Dees et al., 1995; Knight et al., 1994; Newbern et al., 2005), and they have been incorporated into a series of effective modular interventions that cover specific topics such as motivation and communication (Bartholomew et al., 2000). Mapping has been effective for ethnically diverse adult clients, (see Dansereau et al., 1996; Dansereau & Dees, 2002; Czuchry & Dansereau, 2000; 2003), for clients with less education, multiple drug use histories and attention problems (Czuchry et al., 1995; Dansereau, Joe et al., 1995; Joe et al., 1994; Pitre et al., 1996

The *WaySafe* curriculum includes 6 hour-long, weekly sessions and self-directed workbooks that clients complete between sessions. Sessions are conducted in groups by a trained counselor and include a variety of group-based and participatory activities. The *WaySafe* sessions are: (1) *Introduction to Mapping* and includes participants working on group maps while learning mapping principles, (2) *Risk and Reasons* which addresses risk taking and includes having subgroups each working on maps around different aspects of using or not using condoms, (3) *The Game* in which participants form teams and play a quiz game around facts related to HIV, AIDS, and hepatitis B and C (HBV/HCV), (4) *The Should/Want Problem* has teams of participants coming up with reasons why they would want to engage in a risky activity or what they should do regarding the risky activity, (5) *Risk Scenes* which teaches thinking about, planning, and rehearsing intentions regarding risk activities, and (6) *Planning for Risks* which includes activities in which participants are asked to imagine themselves in the future having avoided HIV/HBV/HCV and asking them what advice they would send to their “present” self to avoid infection. Participant workbooks, distributed at the end of each session, include activities and exercises participants are asked to complete on their own to prepare for the following week’s session.

***WaySafe*** **results**. In the first phase of the project, *WaySafe* was implemented in 8 correctional facilities that differed by gender, length of stay, and substance abuse treatment vendor in 2 states. A total of 1,395 inmates participating in drug treatment were randomly assigned to attend the 6 weekly *WaySafe* sessions (N=738) or receive treatment as usual (TAU; N=657). All participants completed a pre-test and were asked to complete a post-test approximately 8 weeks later and after the six *WaySafe* sessions (N=1,266 completed the post-test). A Certificate of Completion was provided after the post-test. The pre- and post-tests assessed knowledge, confidence and motivation regarding HIV Knowledge Confidence, Avoiding Risky Sex, Avoiding Risky Drug Use, HIV Testing and Services, and Risk Reduction Skills.

The current study has resulted to date in 10 published articles (with an 11th article in press and a 12th article under reivew), and 22 conference presentations. In addition, the project includes a Supplement designed to develop and evaluate models to explore the proportion of infections averted by interventions affecting HIV testing uptake and interventions affecting HIV treatment uptake. Findings from the parent project in each of the 8 facilities have revealed that *WaySafe* participants had greater improvements on each of the 5 knowledge and confidence measures (HIV Knowledge Confidence, Avoiding Risky Sex, Avoiding Risky Drug Use, HIV Testing and Services, and Risk Reduction Skills) than did those in the TAU arm (Lehman et al., 2011a). Rowan-Szal et al. (2011) examined *WaySafe* results for female offenders in 3 facilities that differed in program length. Results indicated that female offenders in longer term programs had better pre-test *WaySafe* scores, but that female offenders in the short-term program showed greater improvement from pre- to post-test on *WaySafe* measures. Treatment engagement has been shown to be an important predictor of treatment outcomes. Offenders with higher treatment engagement prior to *WaySafe* had higher post-test scores, but the amount of change from pre- to post-test on *WaySafe* measures was equivalent for both high and low engagement offenders, indicating that *WaySafe* appeared to be successful at reaching low engagement offenders (Lehman et al., 2011b). Bartholomew et al. (2011) found that client participation in high risk behaviors prior to incarceration was associated with greater improvement in *WaySafe,* and results varied by gender.

*Follow-up results for the first several months post-release were available on a sample of 225 study participants. Analysis of this data showed sustainability of improved WaySafe attitudes in the community and that the 5 post-test WaySafe were associated with increased positive behaviors in the community. As noted above, participants who completed the WaySafe curriculum while incarcerated reported improved knowledge, confidence and motivation regarding making better decisions around health risks. High scores at post-test (pre-release) in these areas were associated with reports of lower risks and improved decision-making in the community.*  *Participants who had higher post-test scores on the WaySafe measures while still incarcerated were more likely to report positive, risk reduction behaviors in the community after release including helping others avoid HIV, avoiding personal HIV risks including risky drug use and risky sex activities, getting tested for HIV, and following a clear mental plan for avoiding risk people, places and situations that lead to problems (Lehman et al., 2013).* Most notably, participation in *WaySafe* was positively associated with getting tested for HIV after release back into the community – 74% of offenders who participated in *WaySafe* reported getting tested for HIV compared to 55% of offenders who received TAU (Lehman et al., 2012).

In summary, progress to date has included multiple publications and presentations that have shown *WaySafe* to be an effective curriculum for improving attitudes and intentions among incarcerated offenders regarding making healthier decisions about risk behaviors, particularly with respect to HIV. *These attitudes and intentions have been shown to be positively associated with reports of better decision-making and greater avoidance in risky behaviors after release from prison.* The next step for this research is to adapt the ideas and concepts from *WaySafe* and apply them to the critical time period when offenders transition back to the community, a time when they have an increased likelihood of engaging in drug and sex risk behaviors, and potentially have a substantial impact on public health.

**Background and Significance**

At the end of 2009, roughly 1.1 million persons aged 13 and older in the U.S. were living with HIV/AIDS, with approximately 47,000 new cases being confirmed each year (CDC, 2012). Importantly, in the U.S. prison system in 2010, 1.4% of male inmates and 1.9% of female inmates in state or federal prisons were HIV+ (Maruschak, 2012). In Texas, 1.6% of male prisoners and 2.3% of female prisoners were HIV+. In 2008, the rate of confirmed AIDS cases among state and federal prisoners was 2.4 times that of the general population, and 15,000 seropositive prison inmates are being paroled annually (Stephan & Karberg, 2003). Hepatitis C virus (HCV) is also a significant problem among criminal justice populations with rates much higher than those for HIV. Rhodes et al. (2008) found that 22% of men and 30.1% of women were positive for HCV in a sample of 685 men and women from 4 facilities (2 prisons, 1 half-way house and a jail) in 3 different states. The CDC estimates that 16% to 41% of prison inmates have been infected with HCV compared to 1% to 1.5% in the uninstitutionalized U.S. population (CDC, 2011).

Effective interventions for reducing infectious diseases in criminal justice (CJ) populations can offer significant public health benefits, both to offenders themselves and the public at large. However, there are challenges to “engaging” and convincing offenders with substance abuse histories to adequately plan and apply risk reduction principles during the crucial community re-entry phase after imprisonment. CJ systems also are often fragmented, representing another challenge for efforts to provide integrated care and supervision to offenders at-risk for infectious diseases.

High-risk drug use and sexual practices are common among CJ populations and are the two primary contributors to the high rate of HIV/AIDS cases (Inciardi, 1993). In an in-custody drug treatment program in Texas, for example, Knight et al. (1997) found that nearly half of all program admissions reported intravenous drug use (IDU) within the 6 months preceding custody and nearly two-thirds reported risky sexual practices. Nearly all these at-risk individuals will return to their communities where they, in very large part, will continue to pose a risk to the health and safety of others. Offenders who engaged in risk behaviors prior to incarceration are likely to resume those behaviors after release (Braithwaite & Arriola, 2003) and may often actively seek and engage in risky drug and sex behaviors (Seal et al., 2003). MacGowan et al. (2003) reported that 13% of offenders engaged in risky sex within 1 week of release and 36% within 6 months of release. It is urgent that behavior change programs capable of reducing these risks target offenders as they transition into communities and while they are under CJ supervision.

Drug treatment programs within CJ facilities can be seen as providing a unique opportunity to address some health risks these individuals present to the community (Freudenberg, 2001). Offenders at heightened risk for HIV infection have been filtered from the larger CJ population for assignment to drug treatment programs and those assigned or volunteering for drug treatment are already likely to be more invested in a significant health-oriented behavior change initiative than non-participants. Thus, drug treatment programs within CJ settings represent important access points for providing a range of services to large numbers of high-risk drug users, and an opportunity to reach in and connect with offenders returning to the community from residential or prison-based treatment programs. By virtue of the continuing supervision of the correctional population, institution-based programs also allow comparatively long-term, staged multi-session interventions for treatment clients. Evaluations of HIV/AIDS multi-session prevention/intervention programs implemented in U.S. correctional settings indicate they have the *potential* to influence offenders to reduce their risk-taking behaviors. For example, Bauserman et al. (2003) found a relationship between HIV prevention efforts and reductions in offender high-risk sexual activity and injection drug use. In Texas, a peer education program was found to significantly increase knowledge and self-assessed skills for reducing risk taking (Ross et al., 2006).

Unfortunately, well established and consistent use of HIV/AIDS risk reduction prevention/intervention programs with continuity of care do not exist in most CJ treatment systems because of widespread lack of policy development and integration between institution and community-based corrections, health, and social service agencies. This is a critical period for risk reduction interventions to occur because of the likelihood for risk behaviors to increase upon return to the community. While over 2 million individuals are currently incarcerated in the US, there are at least another 5 million offenders under community supervision (Bureau of Justice Statistics, 2004). Drug use in this population is common, with 41% of probationers in 1996 having had drug treatment as a special condition, and 33% having had a drug testing requirement (Bonczar, 1997). Clearly, to meet the challenge of serving HIV+ and at-risk offenders re-entering the community, a deliberate and coordinated continuum of risk-reduction services is needed that begins during custody (e.g., as part of a drug treatment program) and is integrated with the delivery of continuing care services upon re-entry into the community. In particular, diease risk reduction approaches for community corrections populations are needed that have the capability of addressing motivational, social, and cognitive deficits.

**Significance**

In summary, the significance of this research includes strategies to: (1) address an important underserved population – offenders at high risk for drug use and infectious diseases, and for spreading diseases by those already infected, (2) if successful, the project will provide a free comprehensive intervention strategy to improve practice and impact public health by reducing risk of disease transmission, and (3) community supervision services will be enhanced and expanded to better utilize waiting time by probationers and engage them in activities to improve decision-making skills regarding health risk behaviors.

**Innovation**

The transition from incarceration back to the community is a critical period in which potential failure is high. This includes failure to meet probation requirements, failure to stay clean of alcohol and drugs, failure to avoid disease risks regarding needle use and unsafe sex, failure to maintain medication regimens and obtain treatment for existing medical and mental health conditions, and failure to avoid continued criminal activity.

This application is innovative in a number of ways, including –

* targeting probationers who have recently been released from residential or prison-based substance abuse treatment to test an intervention designed to improve decision-making regarding risk behaviors at the critical transition time back in the community.
* building upon the ideas successfully implemented during the last phase of substance abuse treatment during incarceration as part of the *WaySafe* curriculum.
* Adapting and testing a self-directed, multi-session brief intervention designed for probationers to complete while they are waiting for regularly scheduled meetings with probation officers (POs). An advantage of this approach is that it can be administered to probationers with minimal training and time commitment by staff, and that it utilizes probationer down time when they are waiting for appointments. Thus, the intervention will challenge the existing paradigm of services in Community Supervision and Corrections Departments (CSCD).
* utilizing tablet computers with probationers that allow the intervention to be individualized to the needs and goals of each participant, and provide an easy to use interface for probationers to complete mapping-based activities and to recall completed assignments from previous sessions.
* using evidence-based cognitive mapping principles and based on theoretical models of judgment and decision making that incorporate current advances in understanding dual processing models of decision making. The intervention will be guided by the elements of repetition based on athletic training approaches, simplicity to allow participants to easily complete and incorporate lessons learned in the intervention, and ability to capture attention by being interesting and engaging.

**Approach**

The next step in our research is to adapt our innovative *WaySafe* intervention for use with community-corrections populations. The adapted intervention, *StaySafe*, will be designed to improve decision-making skills regarding health risk behaviors for probationers after release from incarceration or residential substance abuse treatment. *StaySafe* will be designed to be administered to probationers during the brief time they are waiting for their regularly scheduled appointments with their POs. This intervention will be implemented in two large urban counties in Texas – Harris (Houston) and Tarrant County (Fort Worth) CSCD. *StaySafe* will include the following principles and components:

* The intervention will include *12 self-directed sessions designed to each take about 30 minutes (6 hours total).* Each session will focus on a structure for identifying, planning for, and making positive decisions regarding health risk behaviors.
* The individual sessions will be self-administered during waiting periods for regularly scheduled appointments using tablet computers which will allow individual customization of each session to address relevant goals and needs of each participant.
* The intervention will utilize evidence-based TCU Mapping-Enhanced Counseling strategies and will be based on concepts of repetition and simplicity. A standard decision-making structure will be repeated at each session but addressing different goals. Repetition and simplicity enhances learning and accessibility of the decision-making process.
* Project field workers will be available to assist participants with the sessions.
* A baseline background and risk survey will be administered by research staff prior to the intervention and similar follow-up risk surveys will be administered at 6 months, and 12 months after the intervention begins.

The study will utilize a randomized intervention design and will include intervention (*StaySafe*) and control (with the standard operating procedures: SOP) arms. **SOP does not include any HIV programing.** After completing the baseline survey battery, probationers will be randomly assigned to the *StaySafe* or the SOP arms. Enrollment of participants in the study will begin in Year 2 for a period of 30 months (through the middle of Year 4). This will allow the last 12-month surveys to be completed by the middle of Year 5.

**Study Sites and Samples**

The proposed sample for this study will include probationers from 2 different counties in Texas – Harris County and Tarrant County. We chose to include these 2 large urban counties because they represent a wide spectrum of community supervision services provided to substance use probationers potentially at risk for HIV, thus improving the generalizability of our intervention approach. When probationers first enter the probation system, they attend orientation and assessment sessions. Misdemeanor probationers attend group orientation sessions. Felony probationers are oriented by their probation officer and then are scheduled for assessments. *During the assessment session, they will be provided a release form that will allow their name to be provided to our research team so that we can approach them about their interest in participating in the study. The form will emphasize that signing the release is voluntary and it will not commit them to participate, it will only allow their name to be provided to researchers so that we can talk with them about the study and their interest in participating.* Recruiting will take place when probationers come to the probation office for regularly scheduled visits with their PO. Field workers will approach each probationer, briefly describe the study, and ask if they are interested in participating. If the probationer is interested and eligible, an informed consent form will be read to the individual to assure they are aware of their rights as a research participant, and risks and rewards of participation. Eligibility criteria will include (1) recently released (no more than 2 months) from a residential substance abuse program, intensive outpatient program, or jail or prison where substance abuse treatment was received – **basic HIV programing is included as part of substance abuse treatment**; 2) at least 12 months of probation supervision remaining; (3) 18 years of age or older; (4) not classified as a sex offender or convicted of a violent crime; (5) does not have a serious mental illness that could prevent participation in the study; and (6) no pending charges that potentially would result in reincarceration during the next 12 months. The sample will include men and women, minorities, and children between the age of 18 and 21, in rough proportion to their representation in the probation population. We expect to recruit 20 probationers per month each in Harris and Tarrant Counties (600 per county for the 30-month recruitment period). Total enrollment is expected to be 1,200 probationers.

**Tarrant County**. Tarrant County, population 1,779,396 in 2009, is located in northeast Texas immediately to the west of Dallas County. The largest city in Tarrant County is Fort Worth, with a population of 714,206, 16th largest in the U.S. and 5th largest in Texas. Tarrant County population is 51% White, 14% African American and 29% Hispanic. From the Tarrant CountyCommunity Supervision and Corrections Department (CSCD), the sample will include offenders who are released from Substance Abuse Felony Punishment Facility (SAFPF) facilities or Intensive Day Treatment (IDT) offered in jails. Tarrant County CSCD receives about 200-220 offenders from SAFPFs and about 160 annually from the IDT jail program. SAFPF is an intensive substance abuse treatment program designed for offenders under felony community supervision who have been assessed as having a substance abuse problem and who typically have a history of repeated treatment failures at lower levels of treatment or who cannot be treated in less secure environments due to a history of absconding. It lasts six months for regular-need offenders and 9 months for those with special needs, including physical or mental health issues or pregnancy and includes basic HIV programming. Eligibility includes needing restrictive and intensive substance abuse treatment services, any felony except sex or violent offenses, under community supervision, no pending charges or detainer, physically and mentally capable of participation, and court ordered. SAFPF offenders return home and participate in a continuum care program or are sent to a residential transitional treatment center that focuses on successful transition back to the community. Offenders are then released to the community and continue participation in the SAFPF Re-entry Court for a period of 18-24 months, reporting a minimum of every 2 weeks, with many reporting weekly, to meet with the judge, community supervision officer and treatment provider. The Intensive Day Treatment Program (IDT) is a daily program offered for offenders in the Tarrant County Jail. The curriculum includes cognitive behavioral therapy, relapse education, family dynamics and AIDS and STD awareness. After successful program completion, participants attend the IDT aftercare program for 6 months which involves 12 weekly treatment sessions and Aftercare Re-entry Court. Eligibility for the IDT program includes having a substance abuse problem, being under community supervision, having high risk/needs, at least 17 years of age, no major mental illness, and being physically and mentally capable of participation.

***Harris County.*** *Harris County, population 4,253,700 in 2012, is located in southeast Texas and includes the city of Houston.  It is the most populous county in Texas and third most populous in the United States. The county population is 59% White, 18% African American, and 33% are Hispanic or Latino. The Harris County CSCD serves 22 district criminal courts and 15 county criminal courts at law with supervision and services for approximately 38,000 felony and misdemeanor offenders. The Department provides pre-sentence investigations and assessment services for the courts. There are six regional office sites, three neighborhood reporting locations, five residential treatment programs and additional offices in the criminal courthouse. Currently, the Department has approximately 875 employees under the oversight of the Director who is appointed by the judges. For the proposed project, the Harris County study sample will include offenders who are released from SAFPF facilities as well as from the Harris County Direct Intervention using Voluntary Education, Restitution and Treatment (DIVERT) program, currently providing services to 1,392 clients.*

**Intervention**

***StaySafe* Intervention**. The proposed intervention focuses on helping probationers develop cognitive strategies for improving decision-making regarding health risk behaviors. It is an individualized approach intended to be self-directed by the participant over multiple sessions. It adapts concepts from the group-based *WaySafe* curriculum, but extends those concepts to the community re-entry period and in individual settings where group participation is not feasible due to time, space, and scheduling constraints.

Guiding principles for the *StaySafe* approach are: (1) simplicity, (2) repetition, and (3) engagement. Simplicity is critical because the curriculum will be self-administered via tablet computers to probationers while they are waiting for their appointments with their POs. In order for the approach to be sustainable, it will need to be simple enough that it requires minimal effort by staff to implement and minimal training for probationers to access. Repetition is important because it helps train the probationer to plan for and make better decisions regarding risks by repeatedly practicing a simple approach. Using a sports analogy, athletes train by continually repeating behaviors and movements until they become automatic. Thought processes can be trained in a similar fashion by repeating the desired process enough times until it is more readily invoked when the respondent is faced with a risk or temptation. Making the intervention engaging is critical to ameliorate the repetitive nature in order to keep the participant on task.

Our approach builds on current explanatory approaches in decision-making that have emphasized dual processing models that incorporate both experiential and analytic processing systems (Kahneman, 2011; Klacynski, 2005). Judgments and decisions about risk behaviors are often based on the experiential system and are rapid and stem from automatic reference to previously stored episodes. Decision strategies based on the analytic system need to be reinforced; they are viewed as slower and consciously developed. These models also hypothesize that metacognitive (self-monitoring) activities embedded in the analytic system influence how and when the two systems are used. Ultimately, expertise is hypothesized to contain a collection of schematic structures that can emerge from the accumulation of similar episodes or repeated analytic practice (Dansereau et al., 2013). Thus, making more informed decisions regarding health behaviors can be enhanced by developing and repeatedly practicing schematic structures. Unfortunately, decisions regarding high-risk health behaviors often are made from the experiential system which is quicker but does not utilize analytical thinking. The key is to use strategies that will utilize the analytical thinking system, but move the decision making by repetition and practice into the more readily available experiential thinking system. Incorporated into our proposed *StaySafe* approach, analytically created schemas (ACS)s are guides that include general characteristics and steps that underlie a collection of activities, such as planning and decision making (Dansereau et al., 2013). These are consciously created to help understand and respond to situations that may be either infrequently experienced or when elements of the situation are not obvious. We believe that use of these schemas can lead to formation of an implicit structure that represents internal expertise and then can be quickly called upon by the individual when encountering relevant situations. Specifically designed mapping activities can be used to effectively train schema development (Dansereau & Simpson, 2009).

*The StaySafe intervention will consist of 12 brief, 30 minute sessions designed to be completed by individuals.* Sessions will be delivered using touch screen tablet computers. Each session will introduce a different topic, although each of the 12 sessions will use the same planning structure (i.e., guide map). There will be some planned overlap in the topics so that important concepts get repetition and practice. Sessions will be introduced with a brief video that will be professionally produced and designed to be engaging as well as informational regarding the topic at hand. The video narrators will include males and females as wells as Hispanic, African American and white actors. Spanish versions of the video will be available for Spanish speaking probationers. Sessions will include cognitive maps that demonstrate the topic and will include interactive elements for the probationer to input responses. Short activities that prime participants for the session topics will be used to create interest and engagement in the session. As an example, in another research study, we collaborated with the TCU Center for Instructional Services video department for professionally producing short video clips to include as opening segments for some curriculum sessions. The videos featured a magician that performed magic tricks and after each performance there was a how-to demonstration, followed by a brief synthesis on how the video connected with the session topic.

After the introduction video, the second half of each session will involve the probationer completing a map-guided activity that helps guide decision-making. The *Work It* template in the figure below is shown as an example of a schema or map that can be used to train decision making for health behaviors. The final configuration of the schema will be influenced by focus group responses. In the *Work It* framework shown here, a topic or question is presented at the top and boxes below it help guide planning activities around that topic. Such planning activities include listing what choices the participant made, what affect those choices had, and alternative choices that could have been made. The *Work It* map will also ask the participant to list problems they might have achieving that goal and how they will address those potential problems. Retrievable menus will assist participants in filling out each box. The adapted *Work It* worksheet will be loaded on the tablet using the Penultimate® application which allows completing the worksheet by writing directly on the tablet.

Weekly topics for *StaySafe* sessions will be adapted from the *WaySafe* curriculum. These will include: (1) an overview of the use of guide maps for helping make better decisions; (2) identifying risk factors for making impulsive decisions and ways to avoid risk taking; (3) information about HIV/HBV/HCV; (4) understanding the nature of should/want conflicts and how they affect decision-making; (5) understanding how intentions influence behavior and how to strengthen intentions to avoid health risks; and (6) reviewing intentions and decision making and planning to avoid HIV risks and developing future-oriented plans for disease risk reduction. The topic or activity listed for the *Work It* map to finish each session will flow directly from the topic presented during the first half of the session.

*Input for the Work It map will allow the participant to choose from several choices or to input their own brief text. Because of potential low literacy rates for some participants, text will be written at a 5th grade level. Project field workers will also be available to assist participants with sessions. Participants can choose from a list of potential responses. Some exercises may ask the participant to select boxes with pre-filled text and move them to different parts of a map to show how they are related to each other and to show how making certain decisions can lead to different types of outcomes. The participant will be able to choose audio help in which the choices are presented orally through the headphones as well as shown on screen.*

To increase engagement and to trigger memories with *Work It*, “graffiti” will appear next to the map. These are terms, phrases, or factoids that relate to the topic at hand and can provide some background, context, or subtopics to the participant. These graffiti elements can be programmed to appear or “pop up” at various times during the session and can include animated and audio elements to help keep the participant interested and engaged in the process. All *StaySafe* materials will be translated to Spanish.

**Procedures – Adaptation in Months 1 to 12**

The first 6 months of the project will include planning and adapting *WaySafe* activities for *StaySafe*. Focus groups with probationers will be planned and conducted. Interviews and discussions will be held with key players including probation officials in each of the participating counties, state-level probation officials, and key judges involved with substance abusing clients. The process of adapting materials for *StaySafe* will begin. Programming for the computer applications will be started. We will work with probation officials to begin identifying elements of existing probation data that we can access to minimize response burden for the survey batteries for the different measurement points. We will also work on writing some additional questions specific for this study for probationers.

In the second half of the first year, input from the focus groups will be incorporated into the *StaySafe* materials and draft versions of the 12 sessions will be produced. These sessions as well as the survey battery will be pilot tested during the second half of the first year with 20 probationers in each of the two participating counties. Pilot test results will be used to finalize versions of the survey battery, *StaySafe* materials, and procedures for full rollout of the study in the second year.

***Community Advisory Board.*** *We will convene a community advisory board in each of the two participating counties comprised of 8-10 members, including probation department officials, probation officers, and community substance abuse treatment and HIV service representatives. Dr. Ank Nijhawan, from the School of Medicine at the University of Texas-Southwestern Medical School, will oversee the community advisory boards. As an active clinician, Dr. Nijhawan provides HIV services at the Dallas County Jail and as a clinical investigator focuses on health service outcome including transitions of care to the community after release. She is well-connected within both correctional and community-based settings and will oversee recruiting Advisory Board members and convening meetings. The Advisory Board will meet quarterly during the first year of the project and twice per year during Years 2-5. In the first year, the Board will provide input on intervention language and procedures, logistics of recruiting and administering the sessions, and information about linkage with community services that can be incorporated into sessions. During Years 2-5, the Board will meet every 6 months and will be kept informed about study progress and results and will provide input into possible recruiting and logistical issues as well as interpretation and dissemination of study results.*

**Focus groups with probationers**. Two focus groups will be held with probationers in each of the 2 participating counties. Each group will consist of 8-10 participants, who will each receive a $20 gift card for participation. The first part of the focus groups will include discussions around health behaviors and risks, decision making, and scheduling issues. We will solicit areas of concern that could serve as goals and topics for the *StaySafe* intervention. We will also introduce some variants of the decision-making model to get participant reactions and input. Based on participants’ reactions to the materials, we will make refinements to the materials. Before and after the focus groups we will review these materials with the probation officials.

**Intervention Adaptation**

Content for the *StaySafe* sessions will be adapted directly from the 6 *WaySafe* sessions. Dr. Don Dansereau, who helped develop the *WaySafe* curriculum, will lead this process. He has been heavily involved in curriculum development for a large number of our treatment manuals using TCU mapping which are available for download at no cost on our website. This process will involve selecting the key elements of each session and adapting those elements to fit the format of individualized presentation on touch-screen computers. Because of the individualized nature of the presentation, video, animated elements, and audio will be added to help keep he participant engaged in the process. The refined materials will be pilot tested during the second half of Year 1 and final revisions will be made before the full rollout of *StaySafe* in Year 2.

Each of the *StaySafe* sessions will include a brief, professionally-produced video introduction. *These videos will often consist of narrated animated computer graphics, introducing the session topic and procedures and demonstrating mapping activity to be performed.* We will work closely with staff from the Center for Instructional Services (CIS) on the TCU campus to develop these videos. As noted earlier, we have worked with CIS to develop engaging videos as part of a project to increases retention in residential treatment. A key element of *StaySafe* is the innovative use of technology to present ideas to probationers in an engaging and interactive format. Technology Resources (TR) on the TCU campus has programmers experienced in a variety of different formats and technologies available to utilize for the programming component of *StaySafe*. Dr. Dansereau will design the look and feel of the activities and Dr. Gray will be primarily responsible for the development of the computerized applications, but will work with TR as needed. We have previously worked closely with our TR programmers in our other projects and in developing our widely-accessed website.

***Programming.*** *Computer development and programming for the intervention will be led by Dr. Julie Gray who has extensive experience with information technology, programming interactive data collection systems for our automatic data collection systems, working with cognitive mapping and programming previous applications of cognitive mapping strategies on touchscreen computers. She will develop the interactive aspects of the cognitive mapping approaches which will allow input on the screen (using a pen or keyboard), selection of choices from a provided list, assembling cognitive maps by dragging pre-filled nodes, and adding audio elements. As needed, she will utilize resources from CIS and Technology Resources on campus which provide programming assistance. Services for assistance in programming and video and audio development are typically provided by CIS and TR at no extra charge for campus departments.*

**Pilot testing intervention and Instruments**. During the first year, the intervention will be adapted and pilot tested with 20 probationers each in Harris and Tarrant counties. *Participants will be recruited and consented as described below.* The pilot test will be conducted over a 3-month period with sessions scheduled prior to PO visits to reflect the schedule for the full roll-out. Participants will be asked to complete 6 of the 12 sessions and an assessment test battery --*10 of the participants in each county will be asked to complete the odd numbered sessions and 10 will be asked to complete the even-numbered sessions so that each session is completed by 20 probationers*. *After each session, a field worker will briefly interview each respondent to assess their reactions to the session, including any difficulties they had completing the session, how helpful they found the session, language issues with the instructions and guide map, difficulties in using the tablet, and concerns about confidentiality. We also will examine the session output for completeness, relevance of responses, and how much time each session required.* Data collection instruments for the study are widely used and have been validated in other samples. We will administer the battery of forms to pilot test participants to assess how long it takes to complete the battery, and will shorten the battery if necessary so it can be completed in under an hour. *We will pay $10 toward probation fees for each session completed by the pilot test participants for a total of $70 if all seven sessions (i.e., 6 interventions and 1 assessment session) are completed*.

***Feasibility (Preliminary Studies).*** *Feasibility of our proposed approach in terms of probationer participation and use of computerized interventions is supported by several previous surveys and studies. A feasibility study of probationers’ use of an interactive mapping intervention was conducted for a previous grant application. Java-based computer activities, based on the cognitive enhancements developed by the NIDA-funded CETOP project, were tested at the Dallas County Judicial Treatment Center. Probationers were asked to complete the activities on a desktop computer. They used headphones to listen to recorded audio instructions and used the keyboard and mouse to select drop-down choices for the “Tower of Strengths” concept mapping activity or select radio-type buttons for multiple-choice responses. The groups (working individually) stayed engaged with the task and didn’t have to be prompted to complete it. All participants were able to finish the activities within the allotted time frame (~30 minutes) and left with a printed map of the Tower of Strengths to discuss with their counselor. Their comments about the activity were positive, noting they would rather stay and complete another computer activity than go back to their regular daily schedule.*

*Dr. Scott Walters from the University of North Texas Health Science Center is currently conducting a study of motivational interviewing approaches with probationers in Dallas County (Walters et al., in press). This intervention, titled MAPIT, is a brief two-session intervention designed to encourage probationers to initiate substance abuse and/or HIV and other services as needed. MAPIT utilizes touchscreen computers with synthetic narration and tailored reminders and is delivered to probationers in the probation office or other community settings. The graphically rich and narrated interface make it well-suited for probationers with limited literacy. Dr. Walters has currently recruited 80 participants in Dallas County to complete MAPIT and reports that participants have found the computer-based approach satisfying and have been able to successfully complete the intervention with just a small amount of training and assistance. Participants have reported that the program would help them be more successful on probation and in treatment and have been positive about the program’s format, narration, and summary reports (see Letter of Support from Dr. Walters).*

*In addition, experience of members of the research team and collaborators have indicated strong participation rates of probationers in completing voluntary surveys while waiting for appointments with their probation officer. A recent survey evaluating a specialty court program had a 95% participation rate culminating in a sample of 150 surveys. Another project examined the relationship between probationers and probation officers and had a 65% response rate (refer to Letter of Support from Kelli Martin). A survey of probationers waiting for their PO appointments conducted by Dr. Jason Clark-Miller, one of our co-investigators, resulted in 94 participants out of 125 approached (75% rate); 26 participants were unable to finish the survey before their PO appointment, but over half (15 of 26) of these came back to complete their survey after their appointment.*

**Study Implementation – Months 13 to 54**

**Recruiting**. When probationers first enter the probation system, they attend orientation and assessment sessions. *Misdemeanor probationers attend group orientation sessions. Felony probationers are oriented by their probation officer and then are scheduled for assessments. During the assessment session, they will be provided a release form that will allow their name to be provided to our research team so that we can approach them about their interest in participating in the study. The form will emphasize that signing the release is voluntary and it will not commit them to participate, it will only allow their name to be provided to researchers so that we can talk with them about the study and their interest in participating.*  Recruiting will take place when probationers come to the probation office for regularly scheduled visits with their PO. Field workers will approach each probationer, briefly describe the study, and ask if they are interested in participating. If the probationer is interested and eligible, an informed consent form will be read to the individual to assure they are aware of their rights as a research participant, and risks and rewards of participation. They will then schedule a time and place to complete the baseline assessment battery.

Eligibility criteria will include (1) recently released (no more than 2 months) from a residential substance abuse program, intensive outpatient program, or jail or prison where substance abuse treatment was received – **basic HIV programing is included as part of substance abuse treatment**; 2) at least 12 months of probation supervision remaining; (3) 18 years of age or older; (4) not classified as a sex offender or convicted of a violent crime; (5) does not have a serious mental illness that could prevent participation in the study; and (6) no pending charges that potentially would result in reincarceration during the next 12 months. The sample will include men and women, minorities, and children between the age of 18 and 21, in rough proportion to their representation in the probation population. We expect to recruit 20 probationers per month each in Harris and Tarrant Counties (600 per county for the 30-month recruitment period).

**Baseline assessment**. The baseline assessment is a self-administered battery of forms that will take under an hour to complete and will be completed before random assignment to a study arm. The field worker will meet with the participant to provide the assessment battery, give instructions, and be available to answer questions. This session will take place after the respondent signs the informed consent, prior to or after the next scheduled PO appointment, or at another time convenient to the participant. Surveys will be administered on a tablet computer using Audio Computer-Assisted Self-Interview (ACASI) software. This system allows participants to privately answer questions on sensitive topics such as drug or alcohol use, or drug and sex risk behaviors on a computer with headphones. Questions are orally presented to the participants and answers are entered by the participant on the computer screen. All of the probationer survey instruments will be available in Spanish versions. Many of our existing instruments to be used in this study currently have Spanish-language versions. Others will be translated to Spanish using a translation/back translation process for accuracy.

**Procedures for assignment to a study arm.** After completion of the baseline survey packet, we will allocate participants in a 1:1 ratio to the *StaySafe* and SOP arms using a permuted block randomization, with block size randomly varied between 2, 4 or 6. A list of random numbers will be generated for each site using the SAS procedure PLAN. Analyses will be intent-to-treat (ITT) with participants analyzed in their assigned treatment arms regardless of compliance with the intervention in the treatment arm.

***StaySafe* Implementation**. *StaySafe* will include 12 sessions based on a tablet computer with touch screen capability. At the first scheduled PO appointment and after completion of the baseline assessment battery, the field worker will meet the probationer when they arrive for their appointment and move to a private area (either a side office or far corner of the waiting room) to give instructions on starting the *StaySafe* session. The field worker will set up a login, help the participant get started on the first session and will provide a set of disposable ear phones for the audio portion. The probationer will then complete the session on their own but the field worker will be available to answer questions or provide assistance as needed. When the probationer has completed the session, the field worker will collect the computer and obtain scheduling information for the next session. The remaining sessions of *StaySafe* will be administered in a similar fashion. The field worker will wait for the probationer at their next scheduled PO appointment and will provide a computer, a new set of disposable ear phones, and will log the participant into the appropriate session. At the end of the final session, a brief survey will come up asking for participant reactions to the modules.

*StaySafe sessions will be scheduled prior to PO appointments. Probationers typically wait a half hour or longer in the waiting room for their appointment. When StaySafe sessions are scheduled, probationers will be asked to arrive for their appointment with enough time to complete the session, generally about a half hour prior to the scheduled appointment. If a session is not completed when the PO is ready for the appointment, the probationer will stop the session and be asked if they will finish it after their appointment. Based on experience conducting surveys in probation office settings, some probationers may prefer to schedule their session after their appointment. If the probationer has begun the cognitive mapping exercise, they will move on to the next StaySafe session at their next appointment. Otherwise, they will be asked to complete that session at their next appointment. Our experience has shown that over half of probationers who were unable to complete a survey before their appointment were willing to complete it after their appointment.*

***Data Security****. Tablet computers used for the StaySafe sessions will be password protected. All data will be identified only by a research ID and will not include any information that can identify the participant. When participants are logged in by the field worker, they will only have access to their current session. At the end of the session, all session data will be transferred to a password protected and encrypted external harddrive and wiped from the computer. Data will be transferred to secure computers at the research offices at the end of each day and wiped from the external harddrive. Baseline and 6 and 12 month assessment batteries will be administered using ACASI software which presents questionnaire items on the screen as well as audio of each item through headphones. Data is automatically encrypted during interview administration. Following completion of each survey, data will be transferred to a password protected and encrypted external harddrive, then will be transferred to secure computers at the research offices at the end of each day.*

**Post-test and follow-up assessments**. *Assessments will be scheduled at 6 months, and 12 months after baseline.* All assessment batteries will be administered using ACASI software. *The 6-month assessment will be administered 6 months following the baseline survey even if StaySafe participants have not completed all 12 sessions.* We also will administer a 12-month assessment to examine longer term effects of *StaySafe.* Procedures will be similar to those used for the baseline assessment.

**Participant compensation**. In Texas, probationers are required to pay approximately $60 per month while under community supervision. As compensation for the time spent in the study, we will pay a portion of monthly probation fees based on the study elements completed. *There will be three assessment sessions each taking up to an hour (baseline, 6-month, and 12-month). We will compensate participants at the rate of approximately $10 per hour of participation plus $5 for transportation costs paid directly to CSCD toward monthly probation fees for each assessment battery completed, for a maximum compensation of $45 for assessments. StaySafe sessions will be designed to be take about 30 minutes, for a total of 6 hours if all 12 sessions are completed. We will pay $10 toward monthly probation fees for each StaySafe session completed. The total maximum compensation for StaySafe sessions will be $120.*

**Year 5 Project Activities (months 49 to 60)**

Data collection will continue during the first 6 months of Year 5 as participants who were enrolled in the first 6 months of Year 4 will be scheduled for 12 month assessments. During this time, final data files for the baseline and 6-month assessments will be produced, final cleaning completed and data files locked for final analyses. Many of the primary analyses will begin before the last year of the project and papers and reports based on 6-month data can be finished while the 12-month data is being finalized during the first half of Year 5. The final six months of Year 5 will focus on completion of analyses and papers utilizing the entire dataset including 12-month data, and probationer data collected from CSCD records. During this time we will also make the *StaySafe* materials and programs **available for free download from our website**.

An important activity will be preparing data files for archiving in the National Addiction and HIV Data Archives (NAHDAP) funded by NIDA and hosted by the Inter-university Consortium for Political and Social Research, which is part of the University of Michigan’s Institute for Social Research. NAHDAP archives and preserves data produced by research grants to support secondary data analysis by other researchers. We will work with staff to prepare data files to meet their requirements for archiving which will include de-identification, final dataset versions, relevant programming code, and codebooks. Data will be archived with the restriction that it is embargoed for two years after the end of the grant funding.

**Probationer Participant Measures**

**Baseline.** Probationer participants will be asked to complete a battery of brief assessments at baseline that will take no longer than an hour to complete.*Global Risk Assessment* *(TCU A-RSKForm)* includes 20 items documenting age, gender, race/ethnicity, education, employment, family involvement, living arrangements, and a broad checklist of background problems (based on Rounsaville et al., 1993; see also Joe et al., 2004). *TCU Drug Screen (TCUDSII)* includes 28 items to quickly identify individuals with a history of heavy drug use or dependency (based on DSM and the NIMH Diagnostic Interview Schedule). It is widely used as a tool in criminal justice settings for identifying offenders eligible for treatment services (Knight et al., 2002). *HIV/Hepatitis Risk Assessment (TCU HVHPForm)* contains 17 items focused on risks associated with injection drug use (including needles and cooking works) and sexual activities, as well as health concerns and related attitudes (Simpson et al., 1994). *Physical and Mental Health Status Screen (TCU HLTHForm)* contains 11 items about types of physical disease or health problems experiences during the last year, and 10 items on symptoms of psychological distress during the past 30 days (based on K10; see Kessler et al., 2003). *Mental Trauma and PTSD Screen (TCU TRMAForm)* contains 17 symptom-severity items representing post-traumatic stress disorder (based on PTSD civilian version, Weathers et al., 1993). *Criminal History Risk Assessment (TCU CRHSForm)* contains 22 items focused on previous arrests, convictions and incarcerations (Hoffman & Beck, 1974; Joe et al., 2004). *Criminal Thinking Scales (TCU CTSForm)* includes 36 items from 6 scales representing Entitlement, Justification, Power Orientation, Cold Heartedness, Criminal Rationalization, and Personal Irresponsibility (Knight et al., 2006). *Psychometric data for the TCU forms is reported by Rowan-Szal et al. (2012) and Simpson et al. (2012). Disease Risk Reduction Scales (DRRScales)*. This form was developed and tested as part of the earlier *WaySafe* study and includes 5 scales that assess knowledge, confidence and motivation regarding HIV Knowledge Confidence, Avoiding Risky Sex, Avoiding Risky Drug Use, HIV Services and Testing, and Risk Reduction Skills (alphas from .76 to .91; Lehman et al., 2012). We also will develop a brief survey asking about previous drug treatment, exposure to *WaySafe*, history of HIV/HBV/HCV/STIs, and previous HIV/HBV/HCV/STI testing. **Process Measures (during intervention).** Process data collected during the intervention will include both quantitative and qualitative measures. In both arms of the study, we will obtain existing records of UA test results, appointment attendance, disciplinary actions, technical revocations, and any new arrests. In addition, we will document completed *StaySafe* sessions, a brief survey of participant reactions to each session, and weekly reports of intervention activities. **6-Month and 12-Month Surveys.** All participants (SOP & *StaySafe*) will be asked to complete an assessment package 6 months and 12 months after enrollment in the study consisting of the instruments that were included in the baseline package. *StaySafe* participants will also be surveyed about their reactions to the *StaySafe* curriculum (e.g., usefulness, difficulties with the approach) and to the use of the touchscreen computer.

**Analytical Plan**

*In terms of study design, clients will be randomly assigned to either StaySafe or SOP. The main focus of the study plan is to test the major research hypothesis that StaySafe participants will have significantly more favorable outcomes than will SOP clients. Specifically, compared to the SOP group, StaySafe participants will have (1) more favorable attitudes toward risk reduction as measured by the DRR scales, (2) fewer/less frequent sex risk behaviors, (3) fewer/less frequent drug risk behaviors, and (4) greater likelihood of HIV/HBV/HCV/STI testing. We will use an “intent to treat” analysis, with StaySafe participants being analyzed together regardless of number of sessions completed. The outcomes will be compared at six months after the baseline surveys and again at twelve months. The primary analytical approaches will include ANCOVA and multiple regression (least squares regression for continuous outcomes and logistic regression for binary outcomes). Analyses will be conducted separately for Harris and Tarrant Counties although some analyses may use a combined sample if results are equivalent between the sites.*

*Initial analyses will examine distributions on all study variables and list descriptive statistics. Variable transformations will be conducted as needed to deal with problem distributions (e.g., extreme skewness, outliers greater than 3 standard deviations). We will compare the StaySafe and SOP groups on baseline variables to determine the equivalence of the two arms. The groups will be compared on demographic factors, substance use, background criminality, criminal thinking and the WaySafe measures.*

*The primary data analyses will compare SOP and StaySafe groups on the outcome measures at 6 and 12 months. ANCOVA will be used with treatment arm being the classification variable, the 6 or 12-month outcome measure as the dependent measure, and the baseline assessment of the outcome measure treated as a covariate. The first set of outcome variables to be examined include the five DRR scales: HIV Knowledge Confidence (alpha=.89), Avoiding Risky Sex (alpha=.91), Avoiding Risky Drug Use (alpha=.85), HIV Services and Testing (alpha=.76), and Risk Reduction Skills (alpha=.85). These measures are closely related to the type of attitudes and intentions targeted by WaySafe and StaySafe and represent the first level of StaySafe outcomes. We will also include covariates in models including age, gender, felony or misdemeanor status, drug screen level, and criminal thinking among others.*

*StaySafe is intended to improve decision-making regarding health risk behaviors and the WaySafe measures described above assess those decision-making skills. These decision-making skills are then expected to be associated with fewer risk behaviors. Thus, the second set of outcomes will include sex risk behaviors, injection drug risk behaviors, and health testing behaviors. Sex risks are derived from the TCU HVHP form and will include how often having sex without a condom, with a drug injector, with someone who traded sex for money or drugs, with someone you knew was HIV positive without using a condom. In addition, the number of people you had sex with, had sex with who were of the same gender, or had sex with while high on drugs. Drug injection risks will include injecting drugs with a needle, using dirty needles that someone else used without cleaning with bleach, using the same cooker, cotton or rinse water that someone else had already used and the number of people you shared dirty needles or cooking works with. An additional outcome will include whether they have sought HIV, HCB, HCV, or STI testing. Analyses of 12-month outcomes will also include 6-month measures as covariates. Additional analyses will include WaySafe measures as predictors to 6-month and 12-month behavioral measures. Because StaySafe is targeted at making better decisions regarding risks, we expect effects on other, non-health behaviors. We will examine additional outcomes at 6 and 12 months including UA test results, disciplinary action, probation revocations, and re-arrests compiled from CSCD data.*

*Although our primary analyses will use an intent to treat model, we will also examine completion rates of the 12 StaySafe sessions. One set of analyses will examine baseline and process measures as predictors of completion rate to identify types of probationers who are more successfully completing sessions and those who are less likely to complete many sessions. Survey questions asking about their experience with StaySafe sessions will be important factors to identify barriers to completion. We will also use number of sessions completed as covariates in some outcome analyses and will examine whether there is a threshold of number of sessions that are needed to have significant change.*

*For the proposed analyses, power is influenced by the effect size for the experimental factor and by the degree of relationship between the covariate and the outcome. Thus, power analysis was conducted as follows. For the present study, 1,200 probationers will be targeted from two large urban-centered counties (600 each from Harris and Tarrant). Power estimates were obtained using the Optimal Design software (Spybrook et al., 2011). The average number of clients was estimated for a random trials model design where clients are randomly assigned to the two arms of the study*

*The minimum detectable effect size was determined under the conditions where power was evaluated at .80 and.90, where α = .05, where a covariate accounted for between 4% and 9% of the variance and the number of subjects (n) ranged from 600 to 200. Under the condition where n=600 and power was .80, the minimum detectable effect size (mdes) was .25 and .29 for power equal to .80 and .90, respectively. When n=500, the mdes was .25 and .29 for power equal to .80 and .90, respectively. For n=400, the mdes was .28 and .33 for power equal to .80 and .90, respectively. The range of mdes would be .32 and .38 for n=300. Therefore, for our anticipated sample sizes, “small to medium effect sizes” would be detectable and our previous research has generally found effect sizes in this range. We anticipate recruiting 600 probationers at baseline in each county. Based on our discussions with probation officials, we anticipate 20% attrition for each subsequent measurement period (6, and 12 months). We expect a sample of 480 for analyses of 6-month outcomes and 384 for analyses of 12-month outcomes. Thus, within each county we will have a sufficient sample size to detect the effect sizes we expect to obtain. The sample sizes will also provide adequate power for conducting some subgrouping analyses such as by gender, race/ethnicity, misdemeanor or felony conviction, etc. We may be able to combine subgroups across the two counties if overall relationships are similar. The power analyses show that we should have adequate power for the proposed analyses if attrition is higher than expected.*

**Timeline**

|  |  |
| --- | --- |
| Activity | Month |
| *StaySafe* adaptation tablet programming, sample development, instrument refinement; focus groups; key personnel interviews | 1-6 |
| Pilot tests of intervention and surveys, intervention refinement, instruments finalized | 7-12 |
| Recruiting, enrollment, survey and *StaySafe* administration, follow-up surveys | 13-42 |
| No new enrollment into the study. Survey administration, *StaySafe* administration, follow-up surveys for participants already enrolled. | 43-54 |
| Datasets finalized, data analysis, data preparation for archiving | 49-54 |
| Final data analysis and preparing papers | 55-60 |

**Potential Challenges/Limitations**

A potential challenge of the proposed research is the feasibility of getting probationers to agree to participate in the *StaySafe* intervention, while waiting to see their PO. Waiting rooms in probation offices are frequently crowded and noisy, and probationers may be hesitant to use tablet computers for the *StaySafe* intervention because of low literacy or lack of experience with the technology. Despite this potential challenge, we believe that this setting and use of technology is highly innovative and offers a significant opportunity to deliver an intervention. We have a long history of working with each of the three CSCDs included in this study and our discussions with department officials has been positive (see letters of support) and they have indicated that appropriate, private space will be available to administer the *StaySafe* sessions. Furthermore, members of the research team have been successful at accessing probationers during wait times to administer surveys taking up to 20 minutes and have achieved over 90% participation rates. Finally, our research team has significant experience designing materials and using technology that actively engages offenders such as the use of mapping techniques with offenders that have low literacy levels.

**Summary**

This proposed application to adapt a health risk reduction curriculum for probationers addresses a highly significant public health issue in the potential spread of HIV/HBV/HCV infection from offenders in the community to the general population. The proposed research utilizes a highly innovative approach in the utilization of PO waiting room times and cutting edge technology to deliver an intervention that is sustainable (e.g., freely available) by requiring minimal training and effort by CSCDs to administer.