



Published in final edited form as:

*Am J Addict.* 2012 ; 21(1): 11–22. doi:10.1111/j.1521-0391.2011.00193.x.

## Challenges and Strategies in Recruiting, Interviewing, and Retaining Recent Latino Immigrants in Substance Abuse and HIV Epidemiologic Studies

Mario De La Rosa, PhD<sup>1,2</sup>, Rosa Babino, MPA<sup>1,2</sup>, Adelaida Rosario, MA<sup>1,2</sup>, Natalia Valiente Martinez, BA<sup>1,2</sup>, and Lubna Aijaz, BA<sup>1,2</sup>

<sup>1</sup>Center for Research on US Latino HIV/AIDS and Drug Abuse, Miami, Florida

<sup>2</sup>Florida International University, Miami, Florida

### Abstract

The growth of immigrant populations in the United States over the past 20 years has increased the need to enhance understanding about the risk factors that influence their substance abuse and HIV risk behaviors. Today, Latinos account for the largest majority of immigrants gaining entry into the United States. As the largest and fastest growing minority subgroup in the United States, they bear a disproportionate burden of disease and death compared to non-Latinos. Latinos are confronted with escalating HIV and substance-abuse problems, particularly Latinos between the ages of 18–34. This paper is based on our longitudinal study on the drug using and HIV risk behaviors of 527 recent Latino immigrants between the ages of 18–34 who have lived in the United States less than 1 year. The data collection activities of this study have provided insights in identifying, recruiting, interviewing, and retaining Latinos in community-based studies. Strategies, such as utilizing a combination of translation techniques, ensured the development and implementation of culturally appropriate questionnaires. Respondent-driven sampling facilitated identifying participants. Establishing rapport and trust was critical for interviewing, and maintaining a tracking protocol was most important for retention. The lessons learned from this study can guide substance abuse and HIV researchers when recruiting, interviewing, and retaining recent Latino immigrants in future epidemiologic studies.

### Introduction and Purpose

Latinos represent 15% of the US population, yet account for 18% of the 42,655 new HIV diagnoses from 2004 to 2007.<sup>1</sup> Within the Latino population, those between the ages of 18 and 34 constitute the largest percentage of new cases. Overall, the rate of new HIV infections among Latinos is three times that of non-Latino Whites.<sup>1</sup> Underlying the HIV epidemic among Latinos nationwide is the relationship between risky sexual behavior and

---

Address correspondence to Dr. De La Rosa, Center for Research on US Latino HIV/AIDS and Drug Abuse, School of Social Work, Florida International University, 11200 SW 8th Street, PCA 356, Miami, FL 33199. Delarosa@fiu.edu.

The content of this paper is solely the responsibility of the authors, and does not necessarily represent the official views of the National Institute on Minority Health and Health Disparities or the National Institutes of Health.

*Declaration of Interest.* The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this paper.

substance abuse.<sup>2</sup> National data indicates that substance use among Latinos appears to be highest among the 18–34 age group.<sup>3</sup> This research has also determined that Latino immigrants ages 18–34 who have lived longer in the United States or are US born are more likely to use alcohol and other illicit drugs than more recent immigrants.<sup>2</sup> As previous research has documented, US born and immigrant Latinos who report higher rates of alcohol and illicit drug use, particularly intravenous drug use, are more likely to engage in HIV risky sexual behaviors than those who are infrequent alcohol users and report no illicit drug use.<sup>4</sup>

Although current research has identified HIV and substance abuse as interrelated emerging health conditions affecting the health status of Latinos,<sup>5,6</sup> particularly among those ages 18–34, there continues to be a dearth of research on this relationship among Latino immigrants who have lived in the United States less than 1 year.<sup>7</sup> Consequently, limited information exists on the challenges encountered when collecting data on HIV risk behavior and drug use patterns of Latino immigrants who have lived in the United States less than 1 year.

Many innovative research activities and approaches have been developed and implemented by substance abuse and HIV researchers to improve recruitment and retention of hidden populations. Yet, we do not know if these strategies are effective in the recruitment and retention of Latino immigrants who have lived in the United States less than 1 year in substance abuse and HIV epidemiologic studies.<sup>8</sup> Effective recruitment and retention methods will result in the inclusion of a higher percentage of Latino immigrants who have lived in the United States less than 1 year into future epidemiologic research on substance abuse and HIV risk behaviors. This could result in a more accurate understanding of the patterns and trajectories of substance abuse and HIV risky behaviors of Latino immigrants before and after their arrival to the United States.<sup>8</sup> In addition, the inclusion of recent immigrants into substance abuse and HIV risk behaviors studies is fundamental to our understanding of the influence that acculturation, acculturation-related stress, and other social determinants have on the substance abuse and HIV risk behaviors of Latino immigrants.<sup>9</sup>

Therefore, this paper aims to increase our knowledge on the development of more effective methods for recruiting, interviewing, and retaining recent Latino immigrants in research studies on substance abuse and HIV risk behaviors. This paper provides information on the challenges confronted and the strategies utilized to successfully address these challenges, in the prerecruitment, recruitment & interviewing, and initial retention and ongoing retention phases of a 5-year longitudinal substance abuse and HIV risk behaviors research study targeting Latino immigrants who have lived in the United States for less than 1 year. The information presented in this paper includes data collection activities undertaken by the staff during the first 2 years of this study, which included baseline assessment interviews and retention activities in preparation for the first and second follow-up interviews of a three-wave longitudinal study.

## Methods

In the Latino Recent Immigrant Study (RIS), participants will be followed for a period of 2 years (three waves: baseline and two follow ups, 12 months apart) with data collected via

interview surveys. Inclusion criteria required each participant to be a Latino, ages 18–34, who have lived in the United States for less than 1 year.

Participants were given the option to have assessments administered in English or Spanish. All baseline assessment interviews were conducted in Spanish at the request of the participants. Baseline interviews were completed in a location agreed upon by both the interviewer and participant. Most of the interviews were administered either in participants' homes (61%) or a restaurant/coffee shop (25%). The remainder of the baseline interviews were completed at the participants' work, school, or other public location. Interviews were audio recorded and reviewed by research assistants for quality control purposes. Data obtained will also be used to assess variables, such as acculturation stress, religious coping, social support, pre-immigration assets, social capital, and substance use and HIV risk behaviors.

## Participants

To be eligible, participants had to be between the ages of 18 and 34, originally from a Latin American country (excluding Puerto Rico and Brazil), and residents of Miami-Dade County who have lived in the United States for less than 1 year. A sample of 527 recent Latino immigrants with an average age of 26.87 years, average time in the United States of 6.77 months, and representing 18 Latin American countries participated in the study. The most prominent ethnic group was Cubans at 42%, followed by Colombians (18%), Hondurans (13%), and Nicaraguans (9%). Guatemalans, Venezuelans, and Peruvians each comprised 2–4% of the sample. Bolivians, Uruguayans, Argentines, Chileans, Costa Ricans, Dominicans, Ecuadorians, El Salvadorians, Mexicans, and Panamanians each comprised less than 2% of the sample. Participants' average length of time in the United States ranged between 1 and 12 months ( $M$ length of time in United States = 6.80,  $SD$  = 3.17). Distinct groups emerged within the sample identifying 365 participants as alcohol users and 82 as drug users. Self-reported immigration status indicated 157 (30%) of the participants as undocumented and 356 (70%) as documented. In terms of education levels, 18% of RIS participants had college degrees, 34% had attended some college, 29% had a high school or equivalent degree, and 19% had not completed high school. The sample consisted of relatively low-income participants. According to participants' self-reports, the average total household income in the 3 months before immigration was \$5,265.11 ( $SD$  = \$5,148.32), which translates to an annual average household income of approximately \$21,000.

Recruitment and retention efforts and activities were classified into three phases, prerecruitment, recruitment & interviewing, and initial retention and ongoing retention, to better distinguish the barriers encountered in each phase as well as the effectiveness of specific strategies utilized to resolve them.

## Prerecruitment Phase

**Purpose**—The primary objective of the prerecruitment phase for the baseline assessment interview was to adequately prepare so that the overall success of the RIS would be maximized. We took formal steps to familiarize ourselves with the community, the unique population of Latino immigrants who have lived in the United States for less than 1 year, and

the anticipated fieldwork while we developed an appropriate interview schedule. As one study staff member explains, “We wanted to make every effort possible to be prepared for what could be encountered in the field and with working with recent Latino immigrants. We were aware we were targeting a hidden population and basically needed to go over and beyond the usual procedure of organizing such a study. We focused on being systematically and exhaustively thorough with every aspect of our study.”

**Dissemination Efforts and Hiring and Training Interviewers**—The prerecruitment phase began with the awareness that minority community members might not know about research programs or might be fearful of them.<sup>10</sup> Initial attempts to disseminate study information into the community included participation in community events. These events included health fairs and neighborhood activities, such as those in Little Havana, which promote the community coming together to play dominoes and cards, among other games. These activities were done predominantly in Latino neighborhoods around Miami-Dade County and included networking with agencies serving the target population and making necessary contacts. Information about the study was available on flyers posted around the community and on electronic bulletin boards, such as Craig's List, a website Latinos access to seek employment, and also in community agencies that serve Latinos.

This early phase also focused on the selection and training of the field staff that would continue recruitment efforts and conduct interviews with the participants. There were a total of eight interviewers, five female and three male. All interviewers were bilingual Latinos who held college degrees (four graduate level, four undergraduate level) and were fluent in both English and Spanish. A total of 4 days of training was administered by the project director, who has experience conducting longitudinal research with Latino populations, aided by the principal investigator (PI) of the study. The first day covered general interviewing techniques and procedures, safety, cultural competence, and human subjects' issues. The second day was devoted to administration of the interview protocol, while the final 2 days involved practice and observing other interviews. Each interviewer then administered one interview and observed another. Additional practice interviews and observation sessions were assigned as needed. Practice interviews were audio recorded and reviewed by the training staff to assure adequate quality.

## Challenges

**Translation of Questionnaire and Barriers to Finding Male Interviewers**—One of the most significant barriers experienced in the prerecruitment phase by the researchers and the staff was directly associated with the diversity of Spanish idiom and slang usage among the various Latino subgroups residing in Miami-Dade County. Research staff working on the interview schedule expressed the difficulty in finding appropriate Spanish measures. “The measures found in Spanish were not easily understood and would not have been appropriate for the population of Latinos that would constitute our sample. The measures were clearly written for a Mexican population and not Latinos of Caribbean, South, and Central American descent. Many participants would not have understood what the questions were asking,” explained one interviewer.

Differences in cultural norms (eg, when to use informal or formal language to greet potential participants, when and how to end a conversation, and how to schedule an interview) between the interviewers and the potential study participants also presented challenges for the staff because rapport could potentially be affected. During the meetings held with the field staff at this phase, the lack of familiarity with specific appropriate and inappropriate cultural norms, such as communication styles, greeting and departure customs, and gender roles unique to each person's country of origin, was apparent. Cultural differences can even be observed in people from different regions of the same Latin American country. The interviewers themselves feared they would be unable to relate to Latinos from a different country of origin. An interviewer described, "I know we, as Latinos, share similar values and get lumped together into the same category, but how could I be expected to know about all (of) those unique qualities to each Latin country and culture that I would come across working with the different participants? I was afraid there would be a disconnect between me and participants, with the Spanish we spoke, our manners of expression, and the experiences we'd each had."

Another important barrier faced during this phase was the difficulty in finding qualified male interviewers. It was determined that males were needed on staff, and although many expressed interest, most male applicants lacked the necessary experience and qualifications.

### Resolutions Strategies

**Translation of Questionnaire**—Once barriers to conducting the study were identified by the PI and the coordinator of the research project, all the necessary steps were undertaken to appropriately address these barriers. Efforts were focused on accounting for semantic consistency despite the idiomatic differences in the Spanish spoken by participants belonging to the various Latino subgroups (ie, Colombians, Cubans, Venezuelans, etc.). A combination of techniques applied by the researchers offered a comprehensive translation of the measure. Translation/back translation was utilized and the interviewers, along with study staff, participated in modified/direct translation and a thorough pilot testing of the measures for appropriateness and semantic consistency. A research staff member explained, "We followed what is considered somewhat of a gold standard. We not only successfully translated and back translated the English measures, but then we presented it to the diverse group of Latino interview staff which was representative of the population we were going to encounter as participants and received feedback from them about how material found in the measure was expressed in their country of origin." Finally, "we met again and discussed each question on the interview schedule, one by one, to ensure each question was semantically equivalent to the original English question and captured what it was intended to ask."

We addressed the interviewers' apprehensions about their anticipated interaction with different Latino subgroups by including cultural competency and role-playing in their training. This was done by setting different scenarios during simulated interviews and reviewing how to best approach, greet, end a conversation, schedule an interview, and answer potential participants' questions/concerns using appropriate practices. For example, interviewers found that people from the Atlantic and Pacific coast regions of Colombia use a

more informal conversational approach when first met than Colombians from the Andean region of Colombia. The discussions that took place during these simulated interviews helped foresee potential problems and allowed us to either revise the translation or revise the method by which the interviewers would explain the question to the participants. It was very important for each inter-viewer to have a comprehensive understanding of each measure to assure that the explanations were appropriate and accurate. Previous research has shown that having informed discussions and exercises on cultural sensitivity with field staff has several positive effects. One, it helps interviewers build skills that allow them to recognize cultural differences among the Latino participants, resulting in the collection of more accurate data. Two, it will result in the development and implementation of a truly culturally adapted interview, which has been found to increase participant satisfaction and provide more accurate data.<sup>11</sup>

**Finding Male Interviewers**—In regard to staffing concerns, the community agencies offered us additional access to qualified men interested in joining our interview staff. The agencies and their sponsored events allowed the study to gain exposure not only to potential participants, but also to potential male interviewers who were already involved in working with the community. Male interviewers possessing valuable social service experience and community contacts joined our staff. In addition, further collaboration with the agency was fostered by integrating agency personnel as research staff.<sup>12</sup>

### **Recruitment, Interview, and Initial Retention Phase**

**Purpose**—The primary objective of the recruitment and interview phase in our RIS was to successfully capture the target population in our sample, build rapport with our participants, and complete a substantial amount of baseline interviews to ensure accurate data analysis.<sup>13</sup> Participant recruitment is an essential task in any empirical research study. Indeed, the effectiveness of recruitment has important implications for the validity of results as well as for the management of ethics and human subjects.<sup>10</sup>

**Initial Recruitment Efforts**—Initially our RIS recruited participants through the dissemination of the study into the community. A research staff member recalls, “Recruitment was always fairly smooth. The different community events and organizations made it easy to expose the study and I think much of the success related to how we disseminated the information. We spoke to staff members and particularly because we were associated with the university, with FIU, the agencies supported us and were clear with why we wanted access to these immigrants in the community.” Research staff’s affiliation with an academic institution such as FIU evoked support from community organizations, which facilitated recruitment. As information on the study began to circulate in the various Latino communities, the research site was contacted by interested participants. Eligibility was identified through self-reporting. Because the target population included undocumented immigrants, which viewed our research with suspicion and mistrust, we did not ask for any documentation confirming criteria. Even though the initial recruitment was done through community agencies or the posted flyers in different neighborhoods, the recruitment shifted to respondent-driven sampling due to the participants asking if they could refer friends or family members that met eligibility criteria.



**Other Recruitment Efforts**—Subsequent recruitment efforts relied on respondent-driven sampling, which has shown to be an effective strategy in recruiting participants from hidden populations.<sup>14</sup> We were surprised to learn how successful this sampling procedure actually was, which allowed for us to rely less on recruiting through the community agencies. Respondent-driven sampling involved asking each participant (the seed in the respondent-driven sampling technique) to refer three other individuals in their social network who met the eligibility criteria for the study.<sup>14</sup> The procedure was followed for seven legs for each initial participant (seed), at which point a new seed would begin. This process was undertaken in the effort to avoid skewing the respondent sample.<sup>14</sup> Those not meeting criteria still served as seeds and generated referrals.

Once potential participants were identified, field staff arranged to meet and interview them at a time and place that was convenient to the participant. Florida International University (IRB) approved consent forms were read to the participants and signatures were collected from those who volunteered to participate in the study. Pilot testing of the questionnaire before the baseline interviews revealed a concern for participant literacy. Consequently, surveys were administered by the interviewer to aid the participants' understanding. Interview sessions concluded with the collection of contact information, which included two alternate contacts residing in the United States and one person in their home countries that would know how to reach them if they moved. Cash incentive payments were disbursed upon completion of the interview session.<sup>15</sup>

**Initial Retention Efforts**—The interviewers undertook retention efforts after the baseline interview was complete by calling to thank the participant for his or her time and participation, and apprising the participant that the interviewer and retention coordinator could be contacted to address any doubts or questions. This process continued the building of rapport and allowed interviewers to explain that the follow-up interviews would be carried out in the same manner as the baseline interview.

## Challenges

**Trust Issues**—Among the several challenges faced by the research staff, perceptions of trust and mistrust of scientific investigators, of government, and of academic institutions were found to be a central barrier to recruitment. One of the interviewers recounts, “You know, constantly, as I would prescreen potential participants, I would get asked ‘How do I know you're not from immigration?’ It was such a legitimate concern.” Another member of our interview staff shared a similar experience, “Even though the participants were referred by family or friends, they were still very hesitant to speak to me. They continuously worried over the fact that they were undocumented, even throughout that first meeting.” Providing informed consent was reported by some participants of previous studies as relinquishing rather than protecting rights, whereas fears of mistreatment and exploitation were also reported.<sup>16</sup> Similarly, concerns were expressed by several of the interviewers that data would be used primarily to advance researchers' careers and portray communities in an unfavorable light rather than to address community health problems.

The research coordinator encountered difficulty in conducting follow-up 9-month call sessions with participants who had completed their baseline interviews with other field staff. The contact information was accurate; however, the participants were reluctant to call back the research coordinator, who was previously unknown to them. This posed a significant challenge because several interviewers had relocated and could not continue on staff. A number of participants were reassigned to other interviewers. “I had such a hard time, overall, trying to reach participants reassigned to me to begin building rapport to facilitate scheduling follow-up sessions with participants whose baselines I didn't do. I had to call so many times and insist and persuade them to even call me back and once I did speak to them, it was still difficult. I had to sell the study all over again to them. It was so much easier to complete the friendly call at the 9-month retention mark with those that were mine for the first interview,” recounts one interviewer.

**Scheduling Issues**—Regardless of rapport level and their interest in the study, participants could not attend follow-up interviews if there was a scheduling conflict, or if they did not have transportation and child care.<sup>17</sup> This barrier presented itself again before the start of the second wave of data collection. The participants had been in the United States for over a year and had routine schedules that included work, school, and social and relationship obligations. “Scheduling follow ups was so much more complicated than expected. My participants had become more established in their living situations that it became very difficult to coordinate their sessions based on their schedules,” explains one interviewer.

**Staff Safety Concerns**—A concern emerged over the safety of staff. Sessions with participants were commonly completed in participants' homes during late afternoon and evening hours. Field staff reported to the research site by calling in before and upon completion of each interview. Despite checking in, there were concerns shared by female interviewers, “Maybe we should have a more organized and structured system regarding safety. I didn't feel that anything could have been done if something did happen to us. The check-in system we used was too informal. We didn't always get in touch with office staff when we called, especially when it was later in the evening.”

**Collecting Sensitive Data**—Interviewers also experienced difficulty when specifically collecting information on the participants' sexual behavior. Two barriers were confronted: asking personal questions in public places and participants not understanding the terminology used in the measure. When the interviews were held in public places, such as restaurants, the interviewers made their best effort to maintain as much conversational privacy as possible, employing techniques, such as speaking more quietly during sensitive questioning. Field staff also described participants' unfamiliarity with the terms used to collect data on sexual practices: “I don't know if it's an issue of educational background but their vocabulary to discuss such things was very minimal and it was challenging to clarify the questions and feel confident that I was collecting accurate data.”

**Incentive Issues**—The practice of giving cash or gift incentives to research participants is becoming increasingly common.<sup>18</sup> Paying participants \$50 as stated in the baseline consent



form, may have consequences in terms of recruitment for research projects and data collected.<sup>19</sup> Prompted by the incentive offered for each eligible referral, a number of individuals being referred were in fact not eligible and commonly exceeded the time in the US criteria. Grady<sup>16</sup> found that “payments could jeopardize informed consent and specifically, the concern is that money is potentially coercive. Most, decisions that a person makes, including the decision whether to participate in a research study, are susceptible to multiple influences. People usually choose and act in accordance with their wants and needs, influenced by their physical, psychological, social, economic, and cultural experiences and circumstances.” This was a constant concern for the interviewers as they addressed eligibility criteria with potential participants. One explains, “There was no way to confirm and prove they were eligible. Some were visibly older, some looked so young, but there was no way to prove it. We couldn't ask for any kind of identification, I mean understandably. We'd also find out later by chance that so and so has been living in the United States for much longer than a year. It was frustrating to always be on guard for those indications that they were in fact ineligible.” Another interviewer recounts, “A few individuals tried to lie to be eligible to participate. Over the phone it was difficult to notice it, but in person it was evident. It was also difficult to tell them that I knew they were ineligible to participate, especially in a few cases where they clearly needed the money.”

**Institutional Barriers**—Institutional bureaucracy, including changes in financial and institutional systems, or changes in the financial department's staff, at times delayed us in promptly providing participants' reimbursements for the incentive offered for referrals. Disappointed and upset participants expressed immediate interest in withdrawing from the study and refusal to assist in further recruitment. An interviewer explains, “The more time had passed, the more difficult the participant was to find even when getting the referral incentive to them. If the reimbursement wasn't immediate as promised, the participants already wanted nothing to do with me, or the study. They wouldn't let themselves be found. They felt they had been cheated.” It was difficult for them to understand that even if they had referred someone, they needed to wait until the person agreed to participate in the study and completed the baseline interview to receive the referral incentive.

## Resolutions Strategies

**Trust Issues**—Researchers assert that many trust-related barriers may be eliminated by improved communication to increase prospective participants' perception of the community goals and motivations.<sup>20</sup> The ability of staff to immediately establish rapport was essential to participants' confidence in the study. Openness with the participants seemed a vital step in creating rapport. One interviewer states, “When the participants still demonstrated reluctance, I explained the university was independent from the federal government. I offered them options. They could come to the office in the university or choose the place they wanted to meet for the interview. I gave them the phone number to the IRB office as well as the office number for the study. Having options seemed to make them feel more comfortable and agreeable because it was reassuring them that it did not have anything to do with the government, especially that they could physically come to the university if they wanted to really check it out.”

In turn, nurturing the rapport established by maintaining the same interview staff over time became imperative. Offering substantial compensation and adequate resources to be able to complete job objectives successfully was afforded to the interview staff. However, it is beyond any employer's control to lose staff electing to pursue opportunities elsewhere, and this challenge remained unresolved.<sup>21</sup> This affected the study by directly creating challenges in retaining participants who had developed a significant deal of trust and rapport with their original interviewers. It became difficult to maintain their further participation with other interviewers despite every accommodation made by the entire staff.

**Scheduling Issues**—Flexibility in scheduling must be upheld by accommodating the scheduling needs of the participants over that of the study staff. Such flexibility facilitated recruiting and interviewing those which were harder to reach, as one interviewer describes, “As participants realized scheduling could be flexible and that their session did not have to be held during formal business hours, it seemed to actually increase the likelihood of arranging an interview. They seemed more relaxed overall about participating, especially those who were most reluctant.” In addition, the staff must be prepared to adapt to any further efforts required on their part to retain participants for follow-up interviews. Due to the later sessions necessary to accommodate participants, designated office staff would be available through personal cell phones beyond standard business hours to ensure the interviewers' safety. Communication was maintained with field staff regardless of the time. If the interviewer did not feel safe after the initial phone call to the participant, the study coordinator would call the participant to apologize, excuse the interviewer, and provide the new interviewer's name to the participant. This process did not cause any problems and worked to discharge interviewers when they were not comfortable with a participant. Providing this option helped in the retention of interviewers, specifically female interviewers.

**Collection of Sensitive Information**—The initial conversation with the participants typically included discussing the purpose of the study, determining eligibility, and scheduling the session. This first session became an opportune time to make the participant aware of the sensitive nature of some of the questions asked in the measure. If a participant chose a public location to hold a session, the interviewer explained that the interview could possibly be overheard. An interviewer explains, “I detailed over the phone, and again before beginning the interview in public, that there were people within earshot that could hear this. I asked if they were prepared to answer personal questions about their sexual behavior under such circumstances. They usually agreed and just wanted to get started already.” Another interviewer also comments, “I just explained things very plainly to them to be sure they understood and felt comfortable about the questions and the whole interview in general. When they couldn't understand the questions (questions on sexual behavior), I just rephrased it in very frank, clear ways and offered descriptive examples. There was no time for me to be modest about it. I needed to know that they understood what was being asked to be able to give me a precise answer and good data. Once I set that tone of being comfortable about what I was asking and talking about, the participants automatically felt more at ease about being open and honest about not understanding things when they didn't and discussing them.”

The interviewers' skills, such as knowing the population, knowing the community they were in, asking the right questions during the first phone call, and validating answers to certain questions by asking in different ways before the first interview, proved useful in identifying ineligible referrals and participants which were motivated by the study incentives. Training interviewers on basic strategies based on key features resulted in effective output. The interviewers routinely, yet discreetly, would screen and draw out relevant information from participants through informal conversations during prescreening, before beginning the baseline interview to ensure participants met criteria for inclusion in the study. The interviewers also applied their best judgment in determining eligibility after ambiguous conversations with participants. In addition, questions were strategically placed in the interview identifying inconsistencies in eligibility criteria, which indicated a possible false referral. For example, participants were questioned about their dates of entry to the United States and their dates of birth in two different ways. In the first phone conversation the interviewer would ask about the day and month of birth, and then would continue screening with other questions before asking the potential participant about his or her year of birth. Possible participants who were lying would pause while trying to calculate an appropriate year of birth to fit the criteria. This indicated to the interviewer that the participant may be lying, which then caused the interviewer to question the participant directly on the matter. In most cases, the potential participant would confess lying, citing a need for the money. The interviewer would then apologize for not being able to include the person in the study. In cases where possible participants would continue to insist they met criteria, interviewers were authorized to decide whether to include them in the study or not.

**Incentive Issues**—Referrals of new participants and continued engagement of existing participants relied a great deal on timely reimbursements of offered incentives. Much of the rapport that exists between the study staff and the participants is contingent on the project's adherence to the incentives offered and provided within the timeframe. Recruitment should be paced in accordance with the unavoidable procedural delays faced when conducting research that requires approval of such incentives in academic settings. Study staff had to manage the timing of institutional approval to release incentives, which is a 3–4-week process, according to the guidelines and procedures set by the institution. It was essential that the paperwork, required by the institution, was completed with ample time before the start of the baseline assessment, and that funds were replenished in a timely manner. To accomplish this, interviewers and the research coordinator predicted the amount of interviews that could be completed in a month in accordance with the recruited possible participants and requested sufficient funds for each month. Also, as in many institutions, guidelines and procedures tend to change, and to avoid any delay in the release of funds, the coordinator was constantly checking the guidelines and procedures of the disbursement of funds to avoid any complications. Possible participants were also given a realistic approximation of when their interviews would take place once the interviewer was certain funds were available to avoid losing the participant.

### Ongoing Retention Phase

**Purpose**—The primary objective of the retention phase was to maximize the preservation of a substantial sample size to ensure findings were representative of the study population

and adequate for data analyses and presentation. Retention in research studies has been shown to be more difficult in ethnic minorities.<sup>22</sup> One of the major difficulties other studies have encountered is mistrust of the study or the institution. Participants give false information because they do not know what the institution will ultimately do with it.<sup>10</sup> Additional barriers were anticipated in working with our target population of recent Latino immigrants.

**Developing a Good Tracking Locator Record**—Because successful retention began at recruitment, addressing the participants' concerns and offering clear explanations of the study from the onset promoted continued engagement and participation. Collection of contact information onto a Locator Form was also completed at the end of each interview and included gathering local residential, business and cellular phone numbers, addresses, two alternates' contact information, and at least one phone number from participants' home countries. The alternate contact list proves very effective for maintaining contact with a research participant and ensuring high retention rates as in other similar studies.<sup>12</sup> It was necessary to review and update the information for each alternate contact regularly. The project coordinator, PI, and staff also found it necessary to create a “postinterview documentation form” to obtain information from interviewers. The form asked questions that would help the study staff identify participants that might be harder to retain in the study, which would force the coordinator to be more detail oriented with those participants.

**Follow-up Efforts**—A dedicated retention coordinator on staff upheld a schedule of 3-, 6-, and 9-month phone contact with participants based on the information provided on the Locator Form at which time contact information was updated. As participants became increasingly mobile and phone contact became progressively limited, rapport was developed with the alternate contacts in the United States and in the participants' home countries. Arean et al.<sup>23</sup> found that having alternate contacts was an effective retention method because they could give information on the whereabouts of participants when the research team could not find them. Electronic mail was used and field or home visits were made when phone contact could not be maintained.

Direct mailing was determined to be a successful recruitment strategy by Hinshaw et al.<sup>24</sup> and utilized in this study in the retention phase as reminders to upcoming or missed follow-up sessions. In addition, small incentives and gifts were mailed to participants periodically to promote their continued engagement. Research outcomes studies frequently provide incentives to research participants for completing follow-up assessments. The incentives are intended to compensate participants for their time and efforts and encourage those who might otherwise be difficult to track to stay in contact with the research team.<sup>25</sup> In our study, this once again proved to be effective because many participants would call to thank the research coordinator for the gift and ask when they should expect the next call.

Home visits were completed when it was determined that phone contact had been lost. Field staff would visit the home and business addresses provided and speak to those at the location as well as to neighbors. Letters addressed to the participants were left at the location. The home visits were completed at different times, but mostly during hours when participants were likely to be home (ie, evenings and weekends). For this population the best times to

find the participants at home were after 7 pm on weekdays, after 3 pm on Saturdays, and almost at any time on Sundays. Due to unemployment status, other participants could be reached at any time during the day.

A tracking system and protocol included a contact log for each participant, which documented detailed accounts of all the communication between research staff and the participant between interview sessions. Retention efforts, such as direct mailings, emails, field or home visits, and communication with alternate contacts, was documented as well. Collecting as much alternate contact information as possible during the interviews was imperative. The contact log became very useful because this sample of participants included mobile groups. It was very important to note any information that could lead us to establishing communication with the participant through other contacts. Participants' alternate contacts would provide us with either a new number for the participant or the number of a person who knew the participant, and this process would continue until we reached the participant, with each step being noted in the log.

During this process precaution is taken to protect each participant's identity and confidentiality. The PI, research coordinator, and retention coordinator are the only study staff members that have access to these logs. The retention coordinator stores the logs in locked cabinets inside an office whose door is locked at all times. To preserve confidentiality, the retention coordinator makes all follow-up calls while the office door is closed. Participants were informed that the contact log would be used for retention purposes for their follow-up interviews, and they were informed that the information provided by them would not be released to anyone and that the study was protected by the Certificate of Confidentiality.

## Challenges

**Communication and Trust Issues**—The retention coordinator tasked with maintaining the call schedule encountered a number of participants hesitant to speak to her. A significant number of participants chose only to communicate with their interviewer. They expressed suspicion toward the coordinator. Interviewers repeatedly reported receiving phone calls from participants questioning the reason for phone calls from anyone other than the interviewer. It was challenging for the interviewers to persuade participants to communicate with other study staff. A field interviewer states, “The participants are asked on their Locator Form if they only wanted to be contacted by their interviewer, or if it was ok to be contacted by other study staff. I remember most wanted to be contacted only by me, yet they were regularly called by someone else between their sessions. I think the fact that their instructions were ignored upset them because they'd call me asking who so and so calling them. They were clearly irritated by it and highly suspicious.” A second interviewer who had resigned due to her relocation out of Florida experienced the same reaction from her participants, “The participants would call me complaining about other people in the study calling them. They didn't trust why other staff was calling and didn't want to be seen or interviewed or anyone else. I had to remind them of the overall goals of the study and refer to the consent form, but they were still uncomfortable speaking to other staff.”

Direct mailings eased participants' reluctance to interact with new staff. All of the addresses provided on the Locator Form were used. These mailings, however, prompted further concern among a small number of participants who demanded that those with whom they share a residence not be made aware of their affiliation with the institution.

Building rapport with the alternate contacts for retention purposes raised another challenge. The alternate contacts had many questions about why we were trying to contact the particular person, and due to confidentiality terms the retention coordinator could not provide detailed information about the reasons for the call. The alternate contacts tended to conceal the whereabouts of participants.

**Scheduling and Safety Issues**—The scheduling of home visits at appropriate times became challenging. Many participants did not have a set work schedule, which forced the retention coordinator and research staff to visit a participant's home various times until the participant was reached or there was a confirmation that the participant was no longer living at the residence. This raised another challenge: the best time to find the participants at home was during the evening hours, creating a safety problem for the retention coordinator. In an effort to solve this concern, the coordinator would visit homes with a male interviewer, but it was very evident that participants were suspicious about a male looking for them, and would lie about their identities once they opened the door. For example, when the female retention coordinator would first knock on the door of a participant's home, the person at the door would be very polite, but as soon as the male interviewer was seen, before even hearing the participant's last name, he or she would say “no, no, don't know” and close the door. The retention coordinator would return on her own on another day and the same person that she had encountered before explained that “I was afraid since I saw a man, I thought it was immigration” and the participant would laugh as soon as the coordinator explained that the man was a co-worker.

**Difficult to Access Participants within the Sample**—Retention of the illicit drug using subgroup and undocumented participants proved to be the most demanding, distinguishing them as the single most mobile group within the sample. They had multiple changes in address, utilized cell phones that were frequently disconnected, and provided alternate contacts that later reported unfamiliarity with the participant. Even though the inclusion of under-represented groups adds to the quality and generalizability of the research, the retention challenges translate into increased costs to the project.<sup>26</sup> Participants' confidentiality limited the types of locator information that could be collected, which increased the effort and collaboration needed from the entire study staff to recover contact with lost participants.<sup>27</sup> Two interviewers who interviewed many participants described as “difficult to access” in this sample would report that after work, they visited locations where their participants were known to socialize to check in and see if they had new phone numbers. The actions taken by the two interviewers helped increase communication with these participants



## Resolutions Strategies

**Communication and Trust Issues**—A great deal of communication is needed between the retention coordinator and the interview staff. Some degree of reluctance on the participants' part is inevitable when interacting with new study staff members. It is imperative for the interviewers to maintain their availability to their participants to address any concerns immediately as well as to offer reassurance regarding communication on the part of the retention coordinator. The interviewers were trained to provide friendly information to participants about other study staff, including the retention coordinator and project coordinator. Interviewers set aside time to respond to any questions participants had about the retention coordinator and other study staff. In some instances, the participant met via conference call with the interviewer and the retention coordinator to make the participant comfortable because participant's routinely worried that the coordinator was an immigration agent. Once the participant heard the interviewer's voice they became calmer and were willing to communicate with a new friendly voice.

**Tracking Hard to Access Participants**—Tracking of the illicit drug using subgroup and undocumented participants has been a challenge requiring attention, effort, and collaboration from a number of staff members. Access to public records was necessary aside from the tracking protocol that included phone calls, home visits, and mailings. Staff had to revisit the community and initial gatekeepers to inquire on the whereabouts of such participants. Reviewing participants' own referrals was necessary and in many instances worked to find more information on the whereabouts of participants in these groups.

In addition, we did not envision losing significant numbers of undocumented participants to deportation. Overall, of the 158 (30% of the sample) undocumented immigrants recruited to participate in the study, 35 have been deported. This high rate of deportation may be related to the continuing efforts by the Department of Homeland Security to deport undocumented immigrants in the city of Miami, where most of our high risk for substance abuse current study participants reside. Data from the Department of Homeland Security<sup>28</sup> indicate that from 2006–2009, 23,602 undocumented immigrants were deported from the city of Miami. Once deported our study field staff located these participants back in their country of origin. Common statements made by such participants include, “La migra came to the construction site and I was not able to run, I was detained for a month and then deported.” Others say “in a few weeks I will begin my trip back to United States, maybe this time I will have better luck.” Moreover, we also encountered some participants that voluntarily left the United States. These participants claimed that the economy was not well, and that the cost of living in the United States was much higher than that of their country of origin. The economic crisis that the United States has been facing seems to be a factor in a small percentage of the retention rate. One participant from Colombia said, “I decided to return to Colombia and be with my family since I was not making much money there, I rather be here and try to find work here.” Another participant explained, “I lost my job, which did not pay enough, and I was not able to send my family money since I couldn't find a job, and living in the United States is not like living here in Costa Rica, there you have to worry about paying rent even when you do not have a job, here I can stay with my family and they understand if I don't

have a job.” These two situations are outside of the study staff’s control. Our efforts resulted in a retention rate of 82%.

## Discussion and Recommendations

This study was one of the first to focus on recent Latino immigrants residing in the United States for less than 1 year. As researchers continue to study substance use and HIV risk behaviors in Latino immigrant populations, the inclusion of recent immigrants will greatly enhance the significance of these studies. Thus, efforts should be undertaken by researchers to proactively plan the development of data collection activities in all phases of the research process (prerecruitment, recruitment and interviewing, and retention phases). In doing so they may want to utilize some of the information reported in our study to help guide their efforts when recruiting recent Latino immigrants into substance abuse or HIV research studies. For example, in the RIS we found recruitment of recent immigrants was most successful when recruiting directly from the community through respondent-driven sampling, compared to recruiting at community agencies or centers. However, the benefit of initially establishing rapport with the community and identifying key gatekeepers as well as the initial group of participants who serve as the first seeds should not be over-looked.<sup>8</sup>

The utilization of “best practice” approaches in the translation and back translation of all our documents in the study (ie, consent forms, questionnaires, and retention information) has been an effective strategy in the collection of valid and reliable information from our participants. This translation and back translation approach was modeled after the World Health Organization<sup>29</sup> guidelines on this topic, allowing us the opportunity to correct errors in translations before going into the field. This approach allowed our interviewers to feel more confident about the questionnaire as they felt they could answer any question raised by the participant. This particular action proved to be an asset to interviewers because it confirmed to participants that this was a legitimate study and that they could trust interviewers.

The importance of the extensive skills training that interviewers received (ie, pilot testing the measure, cultural competence information, and informal conversation role playing), as in other studies,<sup>30–32</sup> was critical to their ability to detect inconsistencies in the self-reported substance abuse, HIV risk behaviors, and other important information concerning study participants. Interviewers were trained to settle situations that arose internally, with the participants, or while in the community.<sup>30</sup> In achieving this goal, interviewers were also encouraged to “confront and overcome any biases, fears and stereotypes” a standard approach when collecting sensitive information on minority populations<sup>30</sup> because the Latino culture is rather diverse. The interviewers also felt this promoted camaraderie, which later facilitated enlisting their support toward retention efforts. All of these efforts had as their primary intention to recruit and retain participants, and promote the collection of more accurate information.

Unfortunately, in spite of these efforts, we did not anticipate the number of participants who were deported or left the country voluntarily during the study’s first year because of the current economic conditions in the United States. Those working with recent immigrants

should consider the reality faced by those who are undocumented and the likelihood of deportation while actively participating in a study. Future research may consider an interview session that can be conducted over the phone if participants can only be reached in their home country. In addition, as expected the illicit drug using subgroup was challenging to track not only because of their high mobility, but due to arrests and problems with the law, as has been the case in other studies.<sup>25</sup> In spite of the challenges that we faced in retaining this difficult to reach population, we found that the strategies that we used to build and maintain a trusting relationship between the interviewer, retention coordinator, and the study participants has allowed us to have an 82% retention rate from baseline interview to the first follow-up interview. The development and maintenance of trust between the interviewers and study participants was the cornerstone of our data collection efforts. Finally, the strategies used to protect the interviewers' safety have been effective because the well-being of interviewers was never threatened by incident.

### Limitations

One limitation of this study that has markedly impacted the outcome is the resignation and relocation of interview staff. Interviewers' resigning before the completion of the study was a significant challenge left unresolved. The trust and rapport developed between interviewers and the participants was more significant than anticipated. Participants became unpredictably attached to interviewers, which created a challenge that could not directly be addressed. This problem occurred mostly with the illicit drug using subgroup, undocumented participants, and female participants. Future research may consider ways to better retain field staff for the duration of the data-collection phase particularly when working with hard-to-reach populations.

A second limitation of the study that affected the recruitment of participants was the opinion of potential participants' family members and/or friends, who advised them not to participate in the study due to their own mistrust of the system. Recent immigrants who have family members and/or friends that have lived in the United States for longer periods were more easily convinced not to participate in the study despite the many explanations by study interviewers.

A third limitation of the study was the inability of the study interviewers to retain some female participants who became involved in serious relationships after the baseline interview because they preferred that their partners not to know of their involvement in the study. This was in spite of the efforts of the field staff to explain that the study was a confidential matter and that first follow-up interviews could take place at alternate locations.

The significance of this paper is its relevance to working with a unique population. The generalizability of the strategies discussed is limited to substance abuse and HIV research studies targeting Latino immigrants of Caribbean, South or Central American descent who have lived in the United States less than 1 year. However, some of the strategies employed in resolving the challenges we faced may be used by researchers conducting studies that target substance abuse and HIV behaviors of Latino immigrants who have lived in the United States longer than 1 year.

## Conclusion

In summary, this paper is one of the first attempts to identify explicit methodological strategies and procedures for the recruitment and retention of Latino immigrants who have lived in the United States for less than 1 year in studies investigating their high risk HIV and substance-abuse behaviors in Miami-Dade County, Florida. The process provided valuable insights into potential barriers and recommendations for enlisting and maintaining recent Latino immigrants' collaboration in behavioral research.<sup>8</sup> Qualified and trained staff able to understand the cultural norms, values of study participants is essential to the successful outcome of studies similar to ours. Building and maintaining an effective tracking system is a critical element in retaining recent Latino immigrants in behavioral research studies. Investing resources into designing a methodology comprised of the three phases discussed earlier suited our particular purposes and was responsive to the needs of our unique population. This methodology has contributed to the successful conduct of our ongoing comprehensive longitudinal study on the substance abuse and HIV risky behaviors of recent Latino immigrants.

## Acknowledgments

This study was supported by award number P20MD002288 from the National Institute on Minority and Health Disparities, Bethesda, MD (Dr. De La Rosa).

## References

- Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2007. 2009; 19 [Accessed November 17, 2010] Available at: <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/2007report/pdf/2007-SurveillanceReport.pdf>.
- Gonzalez-Guarda RM, Ortega J, Vasquez EP, et al. La Mancha Negra: Substance abuse, violence, and sexual risks among Hispanic males. *West J Nurs Res*. 2010; 32:128–148. [PubMed: 19915207]
- Substance Abuse and Mental Health Services Administration, Office of Applied Studies. [Accessed November 17, 2010] The National Survey on Drug Use and Health Report: Substance use among Hispanic adults. 2010. Available at: <http://www.oas.samhsa.gov/2k10/184/HispanicAdults.htm>
- Afable-Munsuz A, Brindis C. Acculturation and the sexual and reproductive health of Latino youth in the United States: A literature review. *Perspect Sex Reprod Health*. 2006; 38:208–219. [PubMed: 17162313]
- Pew Hispanic Center. [Accessed November 17, 2010] U.S. population projections 2005–2050. 2009. Available at: <http://pewhispanic.org/reports/report-php?RepostID=85>
- U.S. Census Bureau. [Accessed November 17, 2010] An older and more diverse nation by midcentury. 2008. Available at: <http://www.census.gov/Press-Release/www/releases/archives/population/012496.html>
- Trejos-Castillo E, Vazsonyi A. Risky sexual behaviors in first and second generation Hispanic immigrant youth. *J Youth Adolesc*. 2009; 38:719–731. [PubMed: 19636766]
- Shedlin MG, Decena CU, Mangadu T, et al. Research participant recruitment in Hispanic communities: Lessons learned. *J Immigr Minor Health*. 2011; 13:352–360. [PubMed: 19779819]
- Arbona C, Olvera N, Rodriguez N, et al. Acculturative stress among documented and undocumented Latino immigrants in the United States. *Hispanic J Behav Sci*. 2010; 32:362–384. [PubMed: 25484488]
- Yancey AK, Ortega AN, Kumanyika SK. Effective recruitment and retention of minority research participants. *Annu Rev Public Health*. 2006; 27:1–28. [PubMed: 16533107]
- De La Rosa M, Rahill GJ, Rojas P, et al. Cultural adaptation in data collection: Field experiences. *J Ethn Subst Abuse*. 2007; 6:163–180. [PubMed: 18192209]

12. McFarlane J. Strategies for successful recruitment and retention of abused women for longitudinal studies. *Issues Ment Health Nurs*. 2007; 28:883–897. [PubMed: 17729172]
13. Miranda J, Nakamura R, Bernal G. Including ethnic minorities in mental health intervention research: A practical approach to a longstanding problem. *Cult Med Psychiatry*. 2003; 27:467–486. [PubMed: 14727681]
14. Salganik MJ, Heckathorn DD. Sampling and estimation in hidden populations using respondent-driven sampling. *Sociol Methodol*. 2004; 34:193–240.
15. Festinger DS, Marlowe DB, Dugosh KL, et al. Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug Alcohol Depend*. 2008; 96:128–135. [PubMed: 18395365]
16. Grady C. Money for research participation: Does it jeopardize informed consent? *Am J Bioeth*. 2001; 1:40–44.
17. McQuiston C, Uribe L. Latino immigrants: Latino recruitment and retention strategies: Community-based HIV prevention. *J Immigr Health*. 2001; 3:97–105. [PubMed: 16228793]
18. Grady C. Payment of clinical research subjects. *J Clin Invest*. 2005; 115:1681–1687. [PubMed: 16007244]
19. Head E. The ethics and implications of paying participants in qualitative research. *Int J Soc Res Methodol*. 2009; 12:335–344.
20. Leonard NR, Lester P, Rotheram-Borus MJ, et al. Successful recruitment and retention of participants in longitudinal behavioral research. *AIDS Educ Prev*. 2003; 15:269–281. [PubMed: 12866838]
21. Gaglio B, Nelson CC, King D. The role of rapport: Lessons learned from conducting research in a primary care setting. *Qual Health Res*. 2006; 16:723–734. [PubMed: 16611975]
22. Rabinowitz YG, Gallagher-Thompson D. Recruitment and retention of ethnic minority elders into clinical research. *Alzheimer Dis Assoc Disord*. 2010; 24:S35–S41. [PubMed: 22720320]
23. Arean P, Alvidrez J, Nery R, et al. Recruitment and retention of older minorities in mental health services research. *Gerontologist*. 2003; 43:36–44. [PubMed: 12604744]
24. Hinshaw LB, Jackson SA, Chen MY. Direct mailing was a successful recruitment strategy for a lung-cancer screening trial. *J Clin Epidemiol*. 2007; 60:853–857. [PubMed: 17606183]
25. Croft JR, Festinger DS, Dugosh KL, et al. Does size matter? Salience of follow-up payments in drug abuse research. *IRB: Ethics Human Res*. 2007; 29:15–19.
26. Patrick JH, Pruchno RA, Rose MS. Recruiting research participants: A comparison of the costs and effectiveness of five recruitment strategies. *Gerontologist*. 1998; 38:295–302. [PubMed: 9640849]
27. Garfein RS, Swartzendruber A, Ouellet LJ, et al. Methods to recruit and retain a cohort of young-adult injection drug users for the Third Collaborative Injection Drug Users Study/Drug Users Intervention Trial (CIDUS III/DUIT). *Drug Alcohol Depend*. 2007; 91:S4–17. [PubMed: 17582705]
28. Department of Homeland Security. [Accessed November 17, 2010] Yearbook of Immigration Statistics: 2009. 2009. Available at: <http://www.dhs.gov/files/statistics/publications/YrBk09En.shtm>
29. World Health Organization. [Accessed November 17, 2010] Management of substance abuse. Process of translation and adaptation of instruments. 2010. Available at: [www.who.int/substanceabuse/research\\_tools/translation/en/](http://www.who.int/substanceabuse/research_tools/translation/en/)
30. Jansen H, Watts C, Ellsberg M, et al. Interviewer training in the WHO multi-country study on women's health and domestic violence. *Violence Against Women*. 2004; 10:831–849.
31. Centers for Disease Control and Prevention. [Accessed November 17, 2010] Behavioral Risk Factor Surveillance System: Interviewer training. 2010. Available at: <http://www.cdc.gov/brfss/training/interviewer/index.htm>
32. Alcer, K., Clemens, J. [Accessed November 17, 2010] Interviewer recruitment, selection, and training. Cross-cultural survey guidelines. 2010. Available at: <http://ccsg.isr.umich.edu/iwselection.cfm>