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PartyIntents: A portal survey to assess gay and bisexual men's risk behaviors at weekend parties

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Abstract

PartyIntents examines whether portal surveys methods could be used to anonymously survey gay and bisexual men about HIV-risk behaviors before and after a weekend party-oriented vacation. The study recruited 97% of eligible men and of these 489 participants 47% completed the follow-up assessment. Approximately one-half of the men intended to use illegal drugs over the weekend, and almost 20% thought that they might have anal intercourse and not use a condom. The methodology can be applied and provides useful information about HIV-risk at these events, though refinements may be needed to increase follow-up rates.

Keywords

HIV; Surveys; gay and bisexual; substance use

Introduction

More than thirty years since it was first recognized among gay and bisexual men in San Francisco and New York City, HIV infection and AIDS continue to disproportionately affect men who have sex with men (MSM). Among new HIV infections, over half are attributed to male-to-male sexual contact (Hall et al., 2008). In September 2010, the Centers for Disease Control and Prevention (CDC) reported that based on the results of their 21-city study, one in five MSM in the U.S. tests positive for HIV and almost half of those who are positive are unaware that they are infected (Centers for Disease Control and Prevention (CDC). 2010). Reaction to these types of trends suggests that reinvigorating prevention campaigns and programs for this group is critically important (Jaffe, Valdiserri, & De Cock, 2007). Reinvigorating these campaigns and programs for MSM will rely upon science that identifies the reasons why men engage in behaviors that place them at risk. Two epidemiological strategies to inform this question are to focus on populations known to be at elevated risk, such as young MSM (Mansergh & Marks, 1998), and/or at venues where risk is known to be heightened. The purpose of the current paper is to describe and present initial findings from RAND's PartyIntents study, which represents one method for conducting epidemiologic research on the latter of these two domains.

An emerging literature suggests high levels of substance use and sexual risk-taking behaviors (e.g., unprotected anal intercourse (UAI)) among MSM when they are travelling (Bellis, Hughes, Thomson, & Bennett, 2004; Benotsch, Mikytuck, Ragsdale, & Pinkerton, 2006; Benotsch et al., 2007; Benotsch, Seeley et al., 2006; Clift & Forrest, 1999; Crosby, DiClemente, & Mettey, 2003; Darrow et al., 2005; Whittier, Lawrence, & Seeley, 2005). High prevalence estimates of these behaviors have been documented among MSM surveyed in beach towns (Benotsch, Seeley et al., 2006), non-resident men surveyed in Miami

(Darrow et al., 2005), and men recruited in a gay-oriented section of the French Quarter in New Orleans over Mardi Gras weekend (Benotsch et al., 2007). In addition, many MSM travel to events that cater exclusively to them. Such events may include gay cruises, gay pride events, or “circuit parties”- annual multi-event weekends at or around the same time each year in the same location and that center on one or more large dances (Mansergh et al., 2001). Only a handful of epidemiological studies have been conducted on or at circuit parties (Lee, Galanter, Dermatis, & McDowell, 2003; Mansergh et al., 2001; Mattison, Ross, Wolfson, & Franklin, 2001; Ross, Mattison, & Franklin, 2003), but they collectively indicate that that the prevalence of drug use and high risk sex among party-goers is extremely high. For example, in a San Francisco study that assessed gay and bisexual men about past circuit party attendance, 95% reported using a psychoactive substance, most commonly ecstasy and ketamine, and 28% reported having UAI (Mansergh et al., 2001). Cross-sectional surveys conducted at parties themselves reveal similar high prevalence estimates of psychoactive substance use and of high risk sexual behaviors (Lee et al., 2003; Mattison et al., 2001; Ross et al., 2003).

Studying motivations for drug-use and sexual risk-taking will help inform strategies to reduce risk among MSM on vacation generally and attending circuit parties or similar events specifically. Though the research to date has indicated that vacations and circuit parties are venues in which high risk behavior occurs, it has not been able to assess why men engage in specific behaviors when on vacation or at these events. There are two plausible explanations. First, men can attend these events intending or expecting to engage in specific behaviors. In the study of event attendees from San Francisco, 57% reported going to ‘get high on drugs’, 46% ‘to escape everyday life’, and 30% ‘to have sex’ (Mansergh et al., 2001). Among party patrons interviewed during events, close to 20% reported going ‘to be wild and uninhibited’, 11% ‘to party, use drugs’, 6% ‘to have sex’ and 3% to ‘forget about HIV/AIDS’ (Ross et al., 2003). It could also be that MSM are influenced by contextual factors on vacation or during circuit parties. Such factors that may influence a man's decision to use drugs or have unprotected sex may include their peers' behaviors at these venues or opportunities at the events themselves (e.g., availability of a certain drug, unavailability of condoms during a sexual encounter). In other words, although they may not have intended or expected to make high risk choices, at least one researcher posits that when away from their homes, some MSM may be inclined to do so when their everyday time constraints and social expectations are relaxed (Benotsch et al., 2007; Benotsch, Seeley et al., 2006).

One way to inform these questions is to ask men about their intentions and expectations before going on vacation or to a circuit party and then again about their behaviors and perceptions of their peers' behaviors after the event. However, to date such research has yet to be conducted among vacationing MSM or those attending a circuit party. Existing studies have typically assessed MSM in cross-sectional surveys or about past experiences (i.e., retrospectively)-both of which have limited ability to discern causal relationships and which may be subject to recall bias. Recently, researchers have proposed the use of “portal surveys” to study alcohol and drug use before and after high-risk events, and have done so among college students and young adults crossing the Mexico border (Kelley-Baker, Voas, Johnson, Furr-Holden, & Compton, 2007; Lange, Lauer, & Voas, 1999), at college events (Johnson et al., 2006), and at electronic music dance events (EMDEs) (Voas et al., 2006). As described by Voas et al. (2006) portal survey methods are advantageous to study high risk behaviors at venues that are associated with high risk behaviors for multiple reasons, including affording researchers the opportunity to assess temporal estimation of behaviors during an event, observe aspects of the context of the event itself, and they permit the use anonymous data collection strategies including biological assessments.

Extending this type of intercept survey methodology to gay and bisexual men on vacation or at circuit parties, however, poses significant challenges. As opposed to events that may last one night, vacations and circuit parties typically last days, and men will leave the event over the span of multiple days (e.g., men may leave a weekend party on Sunday or Monday) and from multiple locations (e.g., men may be staying at many different hotels). This creates two problems. First, though men may be recruited at an event when, for example, picking up tickets for the weekend's parties, there is often not a single point of exit for men leaving and at which survey staff can be located to conduct the follow-up assessment. Second, existing strategies to "tag" survey participants (e.g., the use of hospital-style wrist bands, see Kelley-Baker et al., 2007) may be of little utility for men staying at an event for multiple days. Other challenges are related to party-attendants themselves and to the topics typically of interest to scientists: sexuality, drug and alcohol use, and sexual behaviors. Though anonymous surveys may assuage confidentiality concerns among survey participants reporting on these topics (Bjarnason & Adalbjarnardottir, 2000; Durant, Carey, & Schroder, 2002; Ong & Weiss, 2000), they limit the ways in which survey staff can remind participants to complete follow-up assessments, and this is known to influence rates of follow-up (Gregory, Lohr, & Gilchrist, 1992; Wright, Allen, & Devine, 1995). In addition, MSM who engage in risky behaviors may regret their behaviors (Kurtz, 2005) which, in turn, may reduce the likelihood of their participating in the follow-up assessment.

RAND's PartyIntents study was designed as a feasibility study to examine whether portal survey methodology could be applied to study behavioral intentions and associated outcomes among gay and bisexual men over party-oriented weekend events. Below, we describe the multi-modal approach we used to conduct the anonymous, short-term longitudinal study and the results this approach had in recruiting party-going gay and bisexual men and retaining them for the follow-up assessment. We describe the response rates as well as differences between participants at the two party locations (Northeast U.S. and Southeast U.S.) and whether there were noticeable differences between those who did and did not complete the follow-up assessment across both sociodemographic characteristics and drug-using and higher risk sexual intentions. Finally, we describe differences between those who completed the follow-up assessment online versus in-person, again across both sociodemographic characteristics and drug-using and higher risk sexual intentions.

Methods

Selecting venues and gaining cooperation

We selected two weekend party events for gay and bisexual men occurring in 2010 – one in the winter in the Southeast U.S. and one in the summer in the Northeast U.S. These two events were selected because they were established events that had been held for multiple years, have a history of drawing substantial crowds of attendees, and were held in different regions of the country at different times of the year and therefore were likely to attract different attendants (see Table 2). In order to access men as they arrived for the weekend, we needed to approach them at a single point of entry. This meant it was essential to develop relationships with the event organizers, gain event-level approval, and establish community support. Understandably, the organizations and individuals hosting these events were concerned with maintaining event image, discerning the motivations of the researchers, and protecting their attendees' privacy and safety. It was essential that we be able to assure the sponsors of the event that: (a) the motivation of the principal investigator was solely for public health and to better inform future education or interventions to benefit the gay and bisexual community, (b) that their event would remain unnamed in any publications or presentations, and (c) participation of attendees was voluntary. The research team asked for very little from the event sponsors – only space to be provided to approach and survey men arriving for the weekend at a central location and a place for men to return at the close of the

weekend to complete an exit survey. For the Southeast study site, PartyIntents staff was located near the party ticket pick-up location; for the Northeast study site, staff chose a location where most men attending the party would visit but that would also attract men who were on vacation and not attending the party.

Onsite baseline survey

In order to minimize potential arrival bias, whereby our sample would be overwhelmingly men from a select city arriving at the same time, we planned to sample men arriving over multiple days (Thursday thru Saturday) and at multiple times (from 9am-9pm). Potential respondents were approached by trained RAND staff at the delegated point using portal survey methodology developed by Voas et al (Kelley-Baker et al., 2007; Voas et al., 2006). Using this procedure, the survey staff was instructed to look at an invisible “line” and recruit the first person to step over that line. Consecutive individuals were approached using this same procedure after each interview was completed. Surveying continued until we met our allotted hourly goal, at which point we stopped recruiting and waited for the start of the next hour. If staff did not reach predetermined hourly or daily goals, they were instructed to continue approaching until total goals were met.

Essential for the success of the approach was selection of survey staff. Approaches were happening in a party atmosphere with men already in the mindset of a vacation weekend - staff needed to be outgoing, confident, non-judgmental, and perceived as “fun.” The PartyIntents survey staff included 5 interviewers (3 females and 2 males) including the principal investigator. Staffing was planned to allow for one onsite supervisor at all times responsible for tracking hourly goals, number of approaches, number of eligible respondents, and handling and documenting respondent payments. At least 2 and up to 4 staff members were scheduled each hour to approach and screen.

Men were approached, screened, and if eligible, asked to complete a self administered survey that took about 15 minutes. To be eligible, individuals had to be male, 21 or older (the minimum age required to attend the dance parties), identify as gay or bisexual, and be planning on attending at least one of the weekend party events (due to the recruitment point at the Northeast site, men were first asked if they were planning to attend any of the specific weekend party events, and if not, they were not asked about their age or sexual identity). Each man who agreed was given a survey printed with a generic ID, along with a clipboard and a pen, and asked to complete it in a nearby private space on his own. The survey included items on past year substance use and sexual behaviors, intentions for the weekend, perceptions about substance use and sexual behavior of other party attendees, and demographic information. The final survey page asked for information that staff used to link baseline and follow-up surveys and the anonymous social network username used to send follow-up reminders, if needed (see below). The men were asked to tear off the last survey page, drop the survey answer booklet in a locked drop box and turn in the security question page to the staff member. Individuals received $25 cash for the baseline survey.

Follow-up Survey

The follow-up survey was slightly shorter than the baseline and took only about 10 minutes to complete. It asked about the respondent's substance use and sexual activity over the course of the weekend and about perceptions of substance use and sexual activity of other attendees. Only self-report was used to assess drug use after the event. In order to maximize follow-up response rates given the anonymity of our respondents, PartyIntents utilized a multi-pronged approach to facilitate completion of the follow-up assessment after the party weekend. This included multi-mode follow-up options and a multi-pronged reminder strategy.

Multi-mode follow-up—Given there was no single exit point or time, men were able to complete their follow-up assessment in-person before leaving the event or online for up to two weeks after the event. In-person assessments could be completed at a central location at both events throughout the Sunday and Monday of the vacation weekend. For those that did not return in person to complete follow-up, they were given the option of completing an online survey created using WebSurvent and hosted on RAND's Extranet. Men were paid an additional $25 cash for participating in the follow-up in person or were given a $25 gift code to a major online retailer immediately upon completion of the web survey. This removed the need for mailing checks or money orders or mailing or emailing gift cards. The online option allowed for anonymity unlike traditional mail survey or phone follow-up options, was a familiar and available mode for this population of respondents, and could be created to allow access to be limited by username and passcode to those individuals who had completed a baseline survey, but not an in-person follow-up.

At baseline, each respondent was asked to provide responses to three security questions – his childhood best friend's first name, his favorite teacher's last name, and the month and day of his birth. These questions were chosen as the answers are unlikely to change over the course of a weekend, are fairly easily recalled, protect anonymity, and combined were unlikely to generate duplicates within the sample. This enabled the study team to link the entry and exit surveys: respondents provided this information to survey staff in order to complete the follow-up assessment in-person, or entered it online in order to access the web-based survey. This meant that between baseline and follow-up assessments, survey staff had to compile lists with this information that were used to validate eligibility for in-person respondents and create individualized passcodes to access the online survey.

Reminder strategy—After completing the baseline assessments, staff members stressed the importance of completing the follow-up survey for an additional $25 payment. They also provided the respondent with a reminder card detailing both the onsite follow-up locations and instructions and the web address for the online survey. Staff also distributed promotional items with the PartyIntents logo and the follow-up survey web address. During the party, project staff developed a strong presence by being visible at events, spending time in common areas, wearing t-shirts with the project logo, and handing out reminder cards and promotional gift items printed with the project logo and survey web address.

At baseline, men were asked to provide, if they had them, their usernames for Manhunt or Adam4Adam, two common social networking sites for gay and bisexual men. Usernames are not name-based and messages are sent directly from one account to another. Manhunt and Adam4Adam usernames were provided from 25% of men. The majority (almost 90%) of these were legible and valid. Messages were sent on Saturday night reminding respondents to return in person before leaving for the weekend. For those who did not complete the assessment in-person, men who provided valid screen names received reminder messages with a link to the web survey three times over the next two weeks. In addition, there was a host hotel at the Southeast site and men were asked to provide their room number if they were staying at the host hotel; RAND staff slipped a reminder postcard under the door on Saturday night. Room numbers at the host hotel were provided by 22 of the 250 respondents (8.8%).

Analysis

The first aim of the current study is to describe the PartyIntents response rate, and how response rate may have varied by study site (Northeast versus Southeast) and eligibility criteria (sexual identity and age). Next, we examine characteristics of survey respondents across sociodemographic characteristics (age, race/ethnicity, relationship status, educational

attainment, employment status, place of residence) as well as self-report of whether the participant had ever tested positive for HIV. We examine differences across these characteristics by conducting chi-square tests (and Fisher's exact tests for categories of small cell sizes) for the following three sets of comparisons: (1) Northeast versus Southeast respondents; (2) those who completed the follow-up assessment versus those who did not; (3) those who completed the follow-up assessment in person versus those who completed it online. These analyses are descriptive, and we have no a priori hypothesis. Next, we examine the proportion of men who report being very likely or somewhat likely to engage in each of 11 specific substance using behaviors over the weekend: ecstasy, ketamine, alcohol, binge drinking (defined as 5 or more alcoholic drinks during a 2-hour interval, though this was only assessed at the Northeast event), crystal methamphetamine, GHB/GBL, marijuana, crack or cocaine, nitrate inhalants (poppers), erectile dysfunction drugs (EDDs- Viagra, Cialis, or Levitra) without a prescription, and psychadelics (LSD or mushrooms) as well as the proportion who reported using each over the course of the weekend. Similarly, we examine the proportion who report being not at all likely, somewhat unlikely, or somewhat likely (i.e., all responses other than ‘very likely’) to use a condom every time they have anal sex with a non-regular sex partner, as well as the proportion who reported having UAI at least once over the weekend. We examine differences in intentions between those who did and did not complete the follow-up assessment and hypothesize that those who do not complete the follow-up are more likely to report intending to use each category of substance and being something other than ‘very likely’ to use a condom every time they have anal sex. We then examine differences in weekend drug use and UAI between those who completed the follow-up assessment in-person versus online and hypothesize that those who complete the follow-up online were more likely to have used each category of substance and to report having UAI over the weekend.

Results

Response rate and characteristics of participants

Table 1 describes the recruitment efforts at each of the two sites. The number approached represents the total number of men sampled at each of the two venues across all enrollment days and times (N=819). 636 men (78%) agreed to answer our screening questions about their age, gender, sexual orientation, and at the Northeast venue, plans to attend at least one of the weekend parties. Those sampled but not screened included refusals (n=152), unable to screen due to language problems (n=17), repeaters (n=13), and one who left before we were able to screen him. There was a substantial difference in screening rates between the two venues with 30% of men approached in the Southeast refusing screening, but only 7% in the Northeast refusing. We attribute this largely to the location of the enrollment: in the Southeast, staff was located at the ticket pick-up at the entrance to the party; the atmosphere was energized with music, dancing, and alcohol. On the other hand, the approach for the Northeast location occurred in a location that was central for men arriving but was not in proximity to the party. Because the location of enrollment in the Northeast also attracted men on vacation who were not planning to attend any of the parties, an additional question was included to screen out regular vacationers. This explains the differences in eligibility rates between the two sites: 99% in the Southeast vs. 79% in the Northeast. 97% of those who screened eligible agreed to complete the survey and returned it to PartyIntents staff.

Party attendants shared similar characteristics across most sociodemographic domains at the Northeast and Southeast events (see Table 2). At both events, men were almost uniformly split across age categories (21-30, 31-40, 41-54) and fewer than 5% were 55 or older. Similarly, around half of all respondents reported being single, approximately one-third reported having a live-in male partner or being married and at both sites over 80% reported being employed full time. There were some significant differences, indicated by p-values

less than 0.05 from a chi-square statistical test: 22% of those at the Southeast event were Hispanic relative to 14% of those at the Northeast event, and 22% at the Southeast site had less than a college education relative to 13% at the Northeast event. The groups also differed in that the Southeast event attracted more men from outside of the metropolitan area in which the event was located (68% versus 21%) including attracting more men from abroad (16% versus 5%). At the Southeast event, 20% of respondents reported having tested positive for HIV and 15% reported testing positive at the Northeast event, though this difference was not statistically significant.

Follow-up

As shown in Table1, 232 (47%) of those who completed the baseline survey completed the anonymous, follow-up survey – 44% of Southeast participants and 51% of Northeast participants. Across both sites, 147 (63%) completed the follow-up in-person, and 85 completed it online (Table 3). There were no significant differences across sociodemographics between those who completed the baseline and follow-up assessments at either site (Table 2), nor were there significant differences across sociodemographics between respondents who completed the follow-up assessment in-person versus online (Table 3). Limited information was collected to remind respondents to complete the follow-up: anonymous screen names for those who had Manhunt or Adam4Adam social networking websites or, at the Southeast site, the room number for men staying at the host hotel. 108 men provided a valid anonymous screen name and of those, 75 (69%) completed the follow-up assessment (35 completed in-person and 40 completed online). Of the 22 men who provided a room number at the Northeast site, 19 completed the follow-up assessment (86%) (14 completed in-person and 5 completed online).

Intentions and Behaviors

Presented in Table 4 is the proportion of attendants who reported, at baseline, whether they were “very likely” or “somewhat likely” to engage in each of 11 types of substance-using behaviors and whether there are differences in intentions between those who did and did not complete a follow-up assessment. Consistently, those in the follow-up were less likely to report intending to use any illegal drug (including unprescribed use of EDDs) and for four drug classes, these differences reached statistical significance: ketamine, GHB or GBL, cocaine or crack, and poppers. On the other hand, intending to use alcohol and to binge drink were slightly higher among those who did participate in the follow-up than those that did not. From a substantive perspective, intentions to engage in substance use among party attendants was high: around 50% reported intending to binge drink and nearly the same percentage reported intending to use ecstasy, while close to a quarter intended to use each of the following drugs: GHB/GBL, marijuana, cocaine or crack, or unprescribed EDDs. Also presented in Table 4 is the proportion of men who reported being something other than ‘very likely’ to use a condom every time they had anal sex. There was no difference in the proportion of respondents who reported having such expectations between those who did and did not complete the follow-up; collectively, almost 20% reporting being something other than ‘very likely’ to use a condom every time they had anal sex.

In Table 5 we present the proportion of attendants who reported, at follow-up, whether they engaged in each of the 11 types of substance-using behaviors over the weekend or had UAI and whether there are differences in reports of these behaviors between those who completed the follow-up assessment in-person versus online. Again, consistent with our hypothesis was that the prevalence of weekend illegal drug use was higher for most drugs (except cocaine or crack) among those who completed the online assessment versus those who conducted their follow-up assessment in-person. The prevalence of alcohol use and binge drinking, however, was higher among those who completed the follow-up assessment

in-person. Collectively, patterns of substance use over the weekend among those who completed the follow-up assessment paralleled drug use intentions: ecstasy was the most prevalent illegal drug used (42%), followed by crack or cocaine (25%), marijuana (20%) and GHB and unprescribed EDDs (prevalence of each was 18%). Collectively, 12% of the men who completed follow-up had UAI at least once over the weekend: 10% of those who completed the follow-up interview in-person, and 16% who completed the online version (though this difference was not statistically significant).

Due to significant attrition of the study sample at follow-up, we used a nonparametric approach to create non-response weights and estimated the weighted prevalence of alcohol and drug use and unprotected anal intercourse over the weekend. Applying these weights did not significantly alter the unweighted estimates presented in Table 5.

Discussion

This study set out to test whether portal survey methods, which have thus far been used to study teenagers and young adults over a one-night event, could be applied to the study of gay and bisexual men attending weekend dance parties. RAND was able to recruit into its PartyIntents study 489 gay and bisexual men at two weekend events-slightly below the study goal of 500 participants. Of those eligible to be respondents, most (97%) agreed to participate in the study, a response rate significantly higher than demonstrated in studies using a similar approach at one-night electronic music dance events (EMDEs) where response rates ranged from between 70 to 92 percent (Voas et al., 2006). Thus, the method was successfully applied to recruiting men at these events. As described in the paper, crucial to the success of this approach was coordination and cooperation of the event promoters and other community stakeholders. In addition, features that may have facilitated success included a relatively short survey, the promise of anonymity, a strategically chosen interview staff, and the use of a $25 incentive.

Though our response rate among eligible respondents was close to 100%, only 47% of those who completed the baseline assessment completed the follow-up. This is much lower than the studies of teens and young adults attending EMDEs which reported a 91% follow-up rate of the 240 participants recruited collectively across 6 events (Voas et al., 2006). Applying non-response weights which were estimated using demographic characteristics and drug and sexual intentions did not significantly alter prevalence estimates. This indicates that although we see differences in intentions in some drug categories between those who did and did not complete the follow-up assessment, such differences do not affect our prevalence estimates. Under the assumption of nonignorability (i.e., that weekend use is not associated with follow-up above and beyond that which is explained by demographic characteristics or intentions) the behaviors over the weekend of respondents should be representative of the baseline sample. Paramount to achieving our response rate of close to half of all respondents was the multimode follow-up strategy: 37% (85 of 232) of PartyIntents respondents who completed the follow-assessment did so online. However, even though study staff stressed the importance of the follow-up assessment, distributed reminder wallet cards and other promotional items with the logo and website, were present with a prominently displayed logo during the course of the party weekend, and offered an additional incentive of $25 value, the study was still only able to recruit half of the baseline respondents.

It is well documented that for longitudinal studies, the use of reminder notifications (e.g., reminder telephone calls, mailed post cards, emails, and text messages) is instrumental for achieving high rates of follow-up (McKenzie, Tulsky, Long, Chesney, & Moss, 1999; Scott, 2004), including longitudinal studies specific to gay and bisexual men (Carballo-Dieguez et

al., 2005; Gwadz & Rotheram-Borus, 1992). Portal surveys have been designed to facilitate anonymous data collection and typically employ strategies for doing so using wristbands or stamps that survey staff use to identify study participants. These methods are not necessarily feasible when the "event" under study is one that occurs over the course of multiple days and there are multiple points of departure. We believe that to extend the use of such studies at these types of events, researchers critically consider using confidential, but not anonymous, data collection. While there is some evidence that anonymous surveys facilitate more truthful responses, particularly to sensitive questions about drug use and sexual behaviors (Bjarnason & Adalbjarnardottir, 2000; Durant et al., 2002; Ong & Weiss, 2000) we were unable to find any evidence indicating that gay and bisexual men are more likely to *participate* in anonymous surveys than they are to participate in surveys that guarantee confidentiality. One way to improve follow-up may therefore be to administer confidential surveys to study participants and send more direct reminders via phone calls, email, and/or text messages. Confidentiality can be assured by obtaining a Certificate of Confidentiality from the Department of Health and Human Services that guarantees protection even under court order or subpoena, by requiring data collection staff to sign a Confidentiality Agreement and undergo data safeguarding training, and by detailing protections in a signed informed consent document written at an appropriate reading level for the population.

With close to half of respondents completing the follow-up assessments, the PartyIntents study reveals unique insight into the intentions and behaviors of gay and bisexual men attending weekend dance events. Previously, researchers studying gay and bisexual men's behaviors at circuit parties asked about men's motivations for attending these events: in one that asked respondents about past party attendance, over 50 percent of attendants reported attending for the purpose of using drugs or getting high (Mansergh et al., 2001) and in one conducted during the course of a party, 11 percent reported going to use drugs (Ross et al., 2003) though in that study 20% reported going to act less inhibited. PartyIntents elaborates upon these findings by specifying that, consistent with other study findings, substance use is high among those attending these events, with close to half of participants binge drinking and/or using ecstasy, and around 20% using each GHB, marijuana, cocaine, or EDDs recreationally. From a prevention perspective, this finding is particularly noteworthy since the use of stimulants and EDDs are both found to increase the risk of HIV infection among men who have sex with men (Ostrow et al., 2009). Related to this point is that almost 1 in 5 respondents reported being less than 'very likely' to use a condom every time they had anal sex. These numbers make it apparent that men arrive at these events intending to engage in specific substance-using behaviors and at some level expect to engage in sexual risk-taking, which may make preventing risk behaviors at these events more difficult. Similarly, it is important to note that the survey was limited to queries about behaviors in the context of these events with general questions about respondents' past behaviors, though we can not discern the contexts in which past behaviors occurred and whether the intentions and behaviors of respondents differ at these events than they do over the course of their day-to-day lives.

To the extent that intentions predict behaviors (Fishbein & Ajzen, 1975), evidence that those who did not complete the follow-up assessment were more likely to intend to use some drug types suggests that the PartyIntents follow-up rates of drug may underestimate the prevalence of weekend drug use. On the other hand, applying non-response weights suggests no difference in rates of weekend drug use for these drug categories. Reliance on self-report data may also cause underestimates in actual rates of drug use, as has been shown in many epidemiologic studies (Delaney-Black et al., 2010; Harrison, Haaga, & Richards, 1993) including studies of men who have sex with men (Fendrich, Mackesy-Amiti, & Johnson, 2008). Though biological specimens have been collected in past portal survey studies and can help address some of the limitations of using self-report, for the current study biological

samples could only have been conveniently collected from those who conducted the follow-up in-person. Nonetheless, using biological assessments of drug and alcohol use, as well as to measure respondents' actual HIV status, may be useful for future portal studies to consider in developing their research design. Our second hypothesis was also supported by the data: reports of drug use were higher among those who completed the online follow-up survey versus those who completed the in-person survey. This is consistent with reports that suggest that respondents tend to be more revealing about sensitive behaviors (e.g., drug use and sexual behaviors) in electronic self-administered surveys (Bowling, 2005; Turner et al., 1998).

The findings signal the call for multi-faceted prevention strategies geared toward gay and bisexual men who attend circuit parties and related events, and some of these are already in place. Structural interventions are needed and exist: at both events, first aid was available at clearly marked tents for party attendants who may have experienced symptoms consistent with drug overdose, though condoms to promote safer sex practices (Renaud et al., 2009; Rhodes et al., 2007) were not consistently available at the Northeast site. Targeted interventions designed specifically for these events have been proposed (Ghaziani & Cook, 2005), and portal survey methods are ideal to use to evaluate these intervention effects. However, interventions are also needed to target gay and bisexual men before they arrive at these events. Behavioral interventions geared towards gay and bisexual men can be effective at promoting responsible substance-using behaviors (Shoptaw et al., 2006; Wong et al., 2008) as well as reducing higher risk sexual activities (Chiasson, Shaw, Humberstone, Hirshfield, & Hartel, 2009; Dilley et al., 2010; Fisher et al., 2006; Hays, Rebchook, & Kegeles, 2003; Jones et al., 2008; Koblin, Chesney, Coates, & Team, 2004; Williams et al., 2008; Wilton et al., 2009) or both types of behaviors (Shoptaw et al., 2008; Velasquez et al., 2009). Such interventions, however, often involve individual or group counseling sessions - efforts are needed to increase the reach of these strategies to otherwise healthy gay and bisexual men who may not attend the community centers or health clinics where these are offered and/or may not relate to the language and prevention messages that are delivered (Morales, 2009).

PartyIntents was designed as a feasibility study to gauge whether portal survey methodology could be applied to gay and bisexual men attending circuit parties, with the goal that research findings from this effort could inform substance use and HIV prevention strategies for men attending these events. Future research with this sample will investigate the role of drug and sexual intentions among party attendants and how these translate into actual behaviors, how intended versus unintended drug use may differentially impact high risk sexual behaviors, and how respondents' perceptions of other party attendants' behaviors change in ways that impact their own behaviors. Results from the current study indicate that the portal survey approach is feasible, though refinements to improve follow-up responses are necessary. Nonetheless, the results from the current study highlight the importance of intervening with men attending these events both during the events, to ensure that they can reduce the risks associated with certain behaviors, and before they attend these events in an effort to help modify their intentions for engaging in behaviors that may increase their risk of HIV infection.

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Table 1

Recruitment of study participants in PartyIntents

	Approached	Screened	Eligible	Complete (% of those eligible)	Follow-up (% of baseline respondents)
Total	819	636	504	489 (97)	232 (47)
Southeast U.S.	402	255	253	250 (99)	110 (44)
Northeast U.S.	417	381	251	239 (95)	122 (51)
Sexual Identity					
Gay/Homosexual	N/A	490	490	477 (97)	229 (48)
Bisexual	N/A	13	13	12 (92)	3 (25)
Straight/Heterosexual	N/A	7	0*	0*	0*
Age					
<21	N/A	0	0*	0*	0*
21-30	N/A	154	152	150 (99)	64 (43)
31-40	N/A	164	161	156 (97)	72 (46)
41-54	N/A	175	174	168 (97)	87 (52)
>54	N/A	18	17	15 (88)	9 (60)

*Per study exclusion criteria; N/A=Not applicable (age and sexual identity were not assessed among men who reported they were not attending party events).

Table 2

Sociodemographic characteristics and self-reported HIV status among PartyIntents respondents, by vacation location and baseline and follow-up assessment

	Southeast U.S.A.		Northeast U.S.A.	
	Baseline	Follow-Up	Baseline	Follow-Up
	N (%)	N (%)	N (%)	N (%)
Total	250 (100.0)	110 (100.0)	239 (100.0)	122 (100.0)
Age				
21-30	78 (33.9)	28 (28.3)	72 (34.1)	36 (33.0)
31-40	71 (30.9)	30 (30.3)	62 (29.4)	34 (31.2)
41-54	78 (33.9)	39 (39.4)	68 (32.2)	35 (32.1)
>=55	3 (1.3)	2 (2.0)	9 (4.3)	4 (3.7)
Race *				
White, Non-Hispanic	164 (65.6)	80 (72.7)	185 (77.4)	98 (80.3)
Black, Non-Hispanic	11 (4.4)	4 (3.6)	10 (4.2)	3 (2.5)
Asian, Non-Hispanic	14 (5.6)	8 (7.3)	5 (2.1)	1 (0.8)
Other, Non-Hispanic	7 (2.8)	3 (2.7)	6 (2.5)	4 (3.3)
Hispanic	54 (21.6)	15 (13.6)	33 (13.8)	16 (13.1)
Relationship Status				
Married	18 (7.2)	6 (5.5)	14 (5.9)	5 (4.1)
Live-in Male Partner	64 (25.6)	39 (35.5)	73 (30.5)	34 (27.9)
Steady Boyfriend	40 (16.0)	14 (12.7)	33 (13.8)	19 (15.6)
Single	128 (51.2)	51 (46.4)	119 (49.8)	64 (52.5)
Educational Attainment *				
Less than college	55 (22.1)	18 (16.4)	30 (12.6)	17 (13.9)
Bachelor's	105 (42.2)	47 (42.7)	115 (48.1)	55 (45.1)
Post-graduate studies	89 (35.7)	45 (40.9)	94 (39.3)	50 (41.0)
Employment Status				
Full-Time	207 (83.1)	91 (82.7)	206 (86.9)	106 (86.9)
Part-time/Student	17 (6.8)	7 (6.4)	12 (5.1)	5 (4.1)
Other	25 (10.0)	12 (10.9)	19 (8.0)	11 (9.0)
Residential Status (See Note)*				
Within Metro Area	39 (15.8)	13 (11.8)	176 (73.9)	87 (71.3)
Outside Metro Area, within U.S.A.	167 (67.6)	78 (70.9)	50 (21.0)	29 (23.8)
Outside U.S.A.	41 (16.6)	19 (17.3)	12 (5.0)	6 (4.9)
Tested Positive for HIV	48 (19.4)	25 (22.7)	35 (14.7)	14 (11.6)

* = Significant differences ($p<0.05$) between baseline assessments at Southeast and Northeast event sites; there were no significant differences between those who did and did not complete the follow-up across these characteristics.

Metro area was defined as the metropolitan statistical area (MSA) in which the party was located for the Southeast site, and as the closest city with over 100,000 persons to the Northeast site.

Table 3

Sociodemographic characteristics and self-reported HIV status among PartyIntents respondents, by mode of follow-up assessment

	In-Person	Web-Based
	N (%)	N (%)
Total	147 (100.0)	85 (100.0)
Age		
21-30	41 (31.1)	23 (30.3)
31-40	39 (29.5)	25 (32.9)
>=41	52 (39.4)	28 (36.8)
Race		
White, Non-Hispanic	112 (76.2)	66 (77.6)
Black, Non-Hispanic	6 (4.1)	1 (1.2)
Asian, Non-Hispanic	3 (2.0)	6 (7.1)
Other, Non-Hispanic	5 (3.4)	2 (2.4)
Hispanic	21 (14.3)	10 (11.8)
Relationship Status		
Married	9 (6.1)	2 (2.4)
Live-in Male Partner	40 (27.2)	33 (38.8)
Steady Boyfriend	20 (13.6)	13 (15.3)
Single	78 (53.1)	37 (43.5)
Educational Attainment		
Less than college	24 (16.3)	11 (12.9)
Bachelor's	61 (41.5)	41 (48.2)
Post-graduate studies	62 (42.2)	33 (38.8)
Employment Status		
Full-Time	119 (81.0)	78 (91.8)
Part-time/Student	10 (6.8)	2 (2.4)
Other	18 (12.2)	5 (5.9)
Residential Status		
Within Metro Area	62 (42.2)	38 (44.7)
Outside Metro Area, within U.S.A.	67 (45.6)	40 (47.1)
Outside U.S.A.	18 (12.2)	7 (8.2)
Tested Positive for HIV	21 (14.4)	18 (21.2)

Metro area was defined as the metropolitan statistical area (MSA) in which the party was located for the Southeast site, and as the closest city with over 100,000 persons to the Northeast site.

There were no significant differences between those who completed the follow-up in-person versus online across these characteristics.

Table 4

Intentions for Weekend Drugs and Unprotected Anal Sex (as reported at baseline) by follow-up status

	Total	No Follow-Up	Follow-Up	*p*
	N (Column %)	N (Column %)	N (Column %)	
Total	489	257	232	
Ecstasy	215 (44.0)	118 (45.9)	97 (41.8)	0.361
Ketamine	71 (14.5)	50 (19.5)	21 (9.1)	0.001
Alcohol	406 (83.0)	207 (80.5)	199 (85.8)	0.124
Alcohol (Binge)*	125 (52.3)	59 (50.4)	66 (54.1)	0.570
Crystal meth	34 (7.0)	20 (7.8)	14 (6.0)	0.448
GHB or GBL	97 (19.8)	61 (23.7)	36 (15.5)	0.023
Marijuana	107 (21.9)	59 (23.0)	48 (20.7)	0.545
Cocaine or Crack	107 (21.9)	69 (26.8)	38 (16.4)	0.005
Recreational ED Meds	105 (21.5)	56 (21.8)	49 (21.1)	0.857
Poppers	87 (17.8)	54 (21.0)	33 (14.2)	0.050
Psychedelics	10 (2.0)	7 (2.7)	3 (1.3)	0.264
Unprotected Anal Sex	89 (18.2)	44 (17.1)	45 (19.4)	0.515

Drug use intentions were defined as reporting “very likely” or “somewhat likely” to use each of the listed class of drugs. Unprotected anal sex intention was defined as reporting “not very likely,” “somewhat unlikely,” or “somewhat unlikely” to a question about the likelihood of using a condom every time respondent had sex over the weekend with a non-regular sex partner.

* Binge drinking was only asked at the Northeast event.

Table 5
Weekend Drug Use and Unprotected Anal Sex by mode of follow-up

	Total	In-Person	Online	*p*
	N (Column %)	N (Column %)	N (Column %)	
Total	232	147	85	
Ecstasy	97 (41.8)	58 (39.5)	39 (45.9)	0.339
Ketamine	31 (13.4)	19 (12.9)	12 (14.1)	0.797
Alcohol	197 (84.9)	130 (88.4)	67 (78.8)	0.049
Alcohol (Binge)*	74 (60.7)	53 (60.9)	21 (60.0)	0.925
Crystal meth	17 (7.3)	8 (5.4)	9 (10.6)	0.147
GHB or GBL	42 (18.1)	22 (15.0)	20 (23.5)	0.103
Marijuana	46 (19.8)	27 (18.4)	19 (22.4)	0.463
Cocaine or Crack	57 (24.6)	36 (24.5)	21 (24.7)	0.971
Recreational ED Meds	41 (17.7)	22 (15.0)	19 (22.4)	0.155
Poppers	29 (12.5)	17 (11.6)	12 (14.1)	0.571
Psychedelics	0 (0)	0 (0.0)	0 (0.0)	-na-
Unprotected Anal Sex	28 (12.1)	14 (9.5)	14 (16.5)	0.118

*Binge drinking was only asked at the Northeast event.