

## Examining New Media as an Innovative Substance Abuse and HIV/AIDS Prevention Protocol in a Resource Poor Community

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### Abstract

**Objective:** This case study describes the benefits and challenges of introducing health prevention messages that incorporate new media strategies targeting African American and Hispanic/Latino teens and young adults from Paterson, New Jersey, a disproportionately resource poor, urban, community.

**Methods:** New media platforms were utilized to raise awareness and educate our target audience on the many facets of substance abuse and HIV/AIDS prevention. This was accomplished by highlighting current events; broadcasting services available; providing general prevention education; and creating opportunities for personal interaction such as chat features, polling, pledges, and other forms of interactivity.

**Results:** Our investigation found that social media increased the reach of prevention messaging within and beyond the focal community, improved community collaborations and communication, and connected young people to health promotion services including testing sites.

**Conclusion:** Evidence from this investigation has found that new media technology has the potential to bolster the effects of prevention messaging. However, in many at-risk urban communities, new media technologies should be part and parcel of a broader prevention approach.

**Keywords:** New media technology; Social media; Substance abuse prevention; HIV/AIDS prevention; African American adolescents and young adults; Hispanic adolescents; Young adults; Case study

### Introduction

Social media as a prevention tool has the potential of increasing social justice possibilities among African American and Hispanic adolescents and young adults. While the relationship among social media, public health, and prevention is relatively new, the U.S. federal government and public health researchers have begun to identify the vast and expanding benefits of using social media in a health promotion capacity [1]. For example, recent studies have employed innovative technologies (e.g. Facebook, Twitter, YouTube, and text messaging) to reach hidden and at-risk populations [2,3]. Consequently, the internet has fundamentally expanded how individuals share and learn from personal experiences, search for information, and make decisions of daily living, particularly health-related choices. New media technologies can provide an accessible pathway for distributing and receiving evidence-based, cultural and linguistically appropriate health promotion messages and can aid in potentially overcoming implementation challenges to reach at-risk populations. Research has further demonstrated that African American and Hispanic adolescents are increasingly utilizing new media and other technologies to retrieve information about “sensitive” topics such as sexual health [4]. This case study describes the benefits and challenges of introducing health prevention messages that incorporate innovative new media strategies targeting African

American and Hispanic/Latino teens and young adults from Paterson, New Jersey, a predominately resource poor, urban, community.

New media continues its exponential growth with user interfacing. Research has shown that 87% of young people whose parents have a minimum of a high school education own computers [5]. Additionally, many teens, who have cell phones, are also using them to access social media. Young adults are similar to teens in their utilization of social media sites. According to the Pew Internet Life Project, 72% of online 18 to 29 year olds use social networking websites at a rate nearly identical to that of adolescents, regardless of their ethnic or racial backgrounds [5]. Similar to other racial and ethnic groups, however, African Americans and Hispanics are active users of new media [4,5]. While African American and Hispanic teens, and young adults, are less likely than Caucasian youth to use laptops when accessing the internet, they are more likely to use other mobile devices such as cell phones [5]. As a result, the possibility and opportunity (i.e., using non-traditional strategies) for engaging racial and ethnic minority individuals and communities via the delivery of empowering messages and health promotion dialogues are increased.

### Literature Review

#### Social Media and health promotion

One of the major benefits of social media is that messages and topics can be customized rapidly to meet the needs of its intended target [6], thus allowing for a broader range of access to varying forms

of prevention and public health information. For example, Kendall et al. [7] examined how individuals are using Twitter to manage and share information about health-promoting physical activities. In an analysis of 15,000 “tweets,” findings support the design of supportive tools and applications associated with this social media platform. Similarly, in a recent qualitative study by Selkie et al. [8] twenty-nine adolescents (65.5% female) who participated in five focus groups were interviewed to determine their views regarding the use of social media technologies in sexual health education/prevention. The findings indicate that teens were interested in using new technologies to obtain and engage in sexual health education, but had concerns with regard to privacy of personal information. Social media in prevention has increasingly become particularly effective in measuring the successes and failures of programs, particularly through process evaluation and metrics [9,10].

Such studies and major epidemiological events have progressed the extensiveness, helpfulness, and use of social media in prevention and public health [11]. Social media has also been increasingly used to target areas of public health concern such as tracking or predicting the spread or severity of influenza, West Nile virus or meningitis as they proliferate in communities, and in identifying disease outbreaks or clusters of chronic illnesses [11]. There are gaps, however, in how individuals access social media and their extent of use. This is predominately due to unequal access to media capabilities and technological resources such as quality internet connectivity and access to computers, smart-phones, or tablets, which is more significantly observed in communities with vaster pockets of poverty [12].

Despite the obvious benefits of using social media in prevention, there has been a lack of research conducted regarding using this platform as a mechanism for improving the social capital of African American and Hispanic teens and young adults residing in high-risk, resource-poor urban communities. This present study intends to fill the gap and describe the utility of using social media in substance abuse and HIV/AIDS prevention. We will demonstrate that social media is not only a tool to be used in isolation, but one to work in tandem with on-going prevention programming, having the potential to engage hard-to-reach groups/populations, to improve and increase capacity and communication, and in turn reduce gaps in service.

### **Conceptual lens: Social capital and new media**

While there are numerous definitions of social capital in the social science literature, this concept is generally referred to as the resources that reside within human relationships, which help promote positive outcomes for individuals [13-15]. Social capital is considered a valuable form of interpersonal assistance that involves supportive relationships, which promote the sharing of norms and values and accentuates ways in which social organizations, specifically small networks of relationships and broad societal patterns of interactions, enhance the capacity of individual and groups [13]. Social economic factors that impact health disparities at the community level can potentially be buffered through the influence of social capital [14]. This is particularly salient within Hispanic and African American communities where social capital has been positively linked to socio-demographic and health-related factors such as reduced mortality, improved health outcomes, and quality of life indicators [16-18]. Conversely, among young people residing in marginalized communities, the absence of social capital can lead to increased risk involvement and overall health compromising outcomes including the areas of substance abuse and HIV/AIDS.

## **Research Design and Methods**

### **Target population and community**

Communities Organizing for Prevention and Empowerment’s (herein referred to as Project C.O.P.E.) Minority AIDS Initiative (MAI) New Media demonstration grant served the geographical area of Paterson, New Jersey. The third largest city in New Jersey [13], with a population of 146,199, Paterson is one of the most densely populated regions in the entire country, second only to New York City. A racially and ethnically diverse urban community, a significant proportion of its residents are of Hispanic/Latino (57.6%) and African American (46.3%) backgrounds and approximately 29% of the city’s population is under the age of eighteen [19]. Further impacting the city are high poverty rates, with more than a quarter (27.1%) of Paterson residents living below the poverty line. This economically disadvantaged community, in contending with the structural barriers of poverty and population density (and their accompanying problems of discrimination and oppression), is at a heightened risk for many intractable social problems such as a high prevalence of substance abuse, escalating HIV infection rates and a proliferation of gangs, violence, and crime.

In a recent study conducted by Reid et al., focus-group interviews with adolescents in the city of Paterson revealed that substance use was considered to be a significant problem throughout the community [20]. The youth stated that they perceived alcohol as being readily available and “very easy to get,” which seems to be an accurate assessment considering that there are close to 200 establishments selling liquor in a geographically small city comprised of eight square miles. The adolescents also described the drug problem plaguing the community of Paterson as pervasive. One female indicated, “You can get it [drugs] anywhere, trust me, you can” [20]. A sobering statistic from the New Jersey Department of Education corroborates these qualitative interviews indicates that in 2014-2015, for the second year in a row, Paterson public schools had the dubious distinction of having the second highest number of students in the state who tested positive for drugs or alcohol [21]. These disparities have also been evidenced among documented HIV/AIDS rates in the city.

HIV/AIDS disproportionately affects Black and Hispanic youth and young adults throughout Paterson. As of 2013, 12% of the Paterson residents diagnosed with HIV/AIDS were 13 to 24 years of age [16]. Of the 1,686 reported cases of people with HIV/AIDS in Paterson, 977 (58%) were males and 709 (42%) were females [22]. Moreover, since 1990 there have been 4,283 documented diagnoses of HIV/AIDS among Paterson residents with 2,546 resulting in death-a fatality rate of 59%, which represents 55% of the current HIV/AIDS cases [22]. Transmission occurred for most Paterson residents through heterosexual contact (30%); however, a larger proportion also contracted the disease through injection drug use (25%) [22].

Unfortunately, the brutal environments that often typify many high-risk urban communities throughout the U.S. have also had a crippling influence on the city of Paterson. The effects of two hurricanes, Irene and Sandy, which brought mass devastation to the city in 2011 and 2012, have further compounded these conditions. Yet, despite the debilitating socio-environmental risk factors impacting the community, cultivating opportunities to promote the social capital and healthy development of the teens and young adults throughout Paterson can contribute to a cultural shift that increases pro-social norms and reduces both substance abuse and HIV rates. For example,

Reid et al. found that the use of evidence-based prevention protocols positively influenced substance abuse and HIV/AIDS knowledge and reduced sexual risk-taking behaviors among urban minority youth [23]. These collective activities appear to have served to increase trust and reciprocity between individuals and build the teens' networks of support [24].

## Study Design

The planning and preparation of this one-year demonstration grant project, which was funded from 2014-2015, was a joint effort among Project C.O.P.E. and several community-based organizations that had a longstanding history of providing culturally resonant service delivery throughout the city of Paterson. Key partners were part of an expansive network of human services organizations that, through their broad array of services, were able to bring an invaluable perspective to understanding substance abuse and HIV prevention needs for at-risk populations. These substance abuse, mental health, and HIV/AIDS service organizations had committed to being a part of the initiative by: (1) aiding in identifying and/or recruiting peer coaches to assist with the delivery of new media activities, messages, and one-on-one assistance to individuals; (2) providing HIV testing opportunities and case management or referrals for the target audience; (3) assigning an organizational representative to serve on the initiative's advisory council; and (4) supporting and promoting all new media initiatives, i.e., campaigns and awareness events (described below).

Consistent with SAMHSA's (Substance Abuse and Mental Health Services Administration) Strategic Initiative #1-Substance Abuse and Mental Illness [25] and the National HIV/AIDS Strategy [26], this project aimed to address the following goals among our target audience: (1) increase HIV/AIDS awareness and knowledge; (2) increase substance use awareness and knowledge; (3) increase awareness and knowledge regarding the inextricable link between HIV/AIDS, substance use, and risky behaviors; and (4) provide the target audience with empowerment-focused prevention strategies through the use of strategic motivational messaging.

## Methods

A Steering Committee was formed, at the outset of the initiative, with representatives from our target populations (e.g. African American and Hispanic/Latino individuals, including the following subpopulations: adolescents ages 12-17, young adults 18-24, volunteer peer mentors/coaches, and community leaders). This committee was integral in selecting, developing, and adapting all new messages, outreach, visuals, peer mentor recruitment and awareness-day events. Key community partners provided testing and case management services and these opportunities were encapsulated in media planning and outreach. Our Steering Committee and community partners promoted all of our new media platforms, were post-engagers, and often shared our content on their new media platforms. Additionally, embedded in all new media outreach, campaigns, and awareness-day events were messages to unify the Paterson community around substance use and HIV/AIDS. The Steering Community meetings also provided a forum to reflect on program findings, thoughts and concerns, modifications needed, and lessons learned. New media approaches can sometimes lack cultural and ethnic elements [4,12,27]. To combat this limitation, volunteer peer mentors/coaches aided the project in maintaining this integrity. Since our volunteers were indigenous to our target audiences, it enabled all messaging and outreach to be unique, relevant, and culturally appropriate.

New media platforms (e.g. Facebook, Twitter, Pinterest and Instagram) were utilized to raise awareness and educate our target population on the many facets of substance abuse and HIV/AIDS. This was accomplished by highlighting current events; broadcasting services available; providing general education; sharing of empowering messages and creating opportunities for personal interaction such as chat features; polling; pledges; and other forms of interactivity. All media outreach worked in tandem to complement six targeted health promotion campaigns (e.g., HIV and Awareness, HIV/AIDS Testing and Case Management, Substance Use Education and Awareness, Substance Prevention and Case Management, HIV/AIDS and Substance Use Connection and Empowerment) and six awareness days (e.g., National Latino AIDS Awareness Day, World AIDS Day, National Women and Girls HIV/AIDS Awareness Day, National Prevention Week, National Gay Men's HIV/AIDS Awareness Day and National Recovery Month).

To facilitate the work in the community and on our new media platforms, approximately 25 volunteer peer mentors/coaches were recruited to provide support at the awareness days and events and were trained on the delivery of health promotion messaging using new media technologies such as video content, one-on-one interactions including text messaging, and the use of social media sites. Volunteer peer mentors/coaches were an integral component of the broader substance abuse and HIV/AIDS prevention and new media and initiative. Their insight and success in navigating the challenges endemic to inner-city life aided the leadership team in refining the new media communications and in developing culturally and linguistically appropriate messaging. Their ability to infuse the human element in all interactions with our target populations enabled our team to outreach in authentic ways, as credible sources. As a result, we identified and communicated messages that resonated on both a macro (new media) and micro (one-on-one interaction) level, which ensured that our new media outreach also served as reinforcements to the direct education interventions that Project C.O.P.E.'s prevention team, who were part of the broader initiative, facilitated at the community level. Similarly, we had an open and consistent communication channel with our volunteers throughout their service period and obtained their insight and feedback following each community outreach activity and awareness-day event.

## Target audience and reach

Our new media campaigns were tailored to the Paterson population; however, with new media being as unrestricted as it is, we were able to serve a broader geographic area including Northern and Central New Jersey and the New York Metro Area. To ensure that our new media messaging reached our target area, we directed our entire paid target marketing (Facebook/Twitter) to the city of Paterson. We also had Paterson-based substance abuse and HIV/AIDS social service agencies on our Steering Committee whose members shared our posts and promoted our awareness with their audiences.

We used several media approaches to reach our population of focus that included platforms such as Facebook, Twitter, Pinterest, and Instagram. During the one year demonstration project funding cycle, we were able to achieve 56,937 reaches on Facebook, with 5,810 being specifically identified from Paterson; 59,812 Impressions and 121 retweets on Twitter; 4,980 Impressions, 2,112 Views and 65 Pins on Pinterest; and 65 followers with 65 Likes on Instagram.

Regarding the reach in Paterson, the impact is actually exceptionally higher as not all new media platforms allow for tracking exact



geographic locations [28], as well as individuals restricting their exact location (most cite the greater NYC area, of which Paterson is a part) for privacy reasons. Midway through the project, in an effort to expand our reach in the community, we incorporated new media approaches, which included digital e-mail marketing via Constant Contact and the creation of a refocused community-based website and blog. We found a stand-alone website worked best with our audiences, especially for those with language and literacy barriers. Feedback from Steering Committee members, peer mentors, and event attendees found that while some are very comfortable engaging in open forums like Facebook and Twitter for HIV/AIDS and substance abuse issues, others preferred to receive and access this information digitally in closed or private forums. Bi-monthly newsletters were distributed to 1,772 people. Constant Contact was also used for postcard e-mail blasts that shared infographic or referral information.

## Results

### Evaluation framework, metrics and findings

**Metric analysis:** All new media platforms were checked daily for the reach and engagement of posts. Social media trends were studied and when applicable added to our campaigns (e.g., motivational quotes, empowered messages, news stories, and legislation pertaining to HIV/AIDS, recovery and substance use). Health trends were also monitored and reflected in our posts. These trends were derived from national and local current events, NIDA, CADCA, AIDS.gov, SAMSHA, CDC and other federal sources.

New media analytics were analyzed weekly using various tools such as Simply Measured, Facebook Analytics, Twitter Analytics and Pinterest Analytics. Efficacy was primarily measured through reach, engagement and percent engagement. Metrics used were updated based upon the relevancy of the information obtained, as well as new metrics that were learned through continued education, such as webinars and metrics guides.

Project C.O.P.E.'s new media initiatives targeted African American and Latino/Hispanic 18-24 year olds residing in Paterson New Jersey. Our campaign reached more than 2,000 Paterson residents between the ages 25-34. The average age of our campaign engager was between 18 to 34 years of age. As our page popularity increased, and our Steering Committee and peer mentors became engaged, the age range shifted closer to our target audience. On Twitter, the gender breakdown of the population was split, with 54% female and 46% male. On Facebook, the gender breakdown of the target population was skewed toward females (69% female, 30% male). The audience reached on Pinterest was also skewed toward female (58.3%), which is expected for this media platform (male: 32.5%; unspecified: 9.1%).

Because of this New Media HIV initiative, and the work of the established Steering Committee, a total of 1,463 people were linked to HIV providers through postings on Facebook and Twitter. These sites provided direct links to the AIDS.gov testing locator (which was also located on our website), promotion of a testing event at a local agency, and links to AIDSvu.org. An additional 2,985 people were linked to local providers via wallet cards/inserts distributed at our events and e-mail blasts. Cards were provided to Steering Committee members for replication and dissemination among their audiences (waiting rooms, events); as such, the true number of individuals reached was appreciably higher but was difficult to quantify, a limitation to our findings. Through Facebook and Twitter posts, 1,042 people were

linked to other support services. As part of our outreach efforts, which served to complement the new media platforms, our initiative partnered with the city of Paterson's mobile HIV testing Unit and other community-based agencies for our National AIDS testing outreach event. At these events, a total of 74 individuals received HIV testing; of those tested, none of these individuals tested positive.

## Discussion and Conclusion

Project C.O.P.E.'s New Media grant afforded our prevention team with the opportunity to expand our efforts in Paterson by converting our awareness and health promotion efforts implemented through direct education to a more expansive environmental approach. Utilizing innovative new media efforts strengthened Project C.O.P.E.'s awareness, presence and respect with both our local Hispanic and African American communities and fortified and created new alliances within the Paterson prevention community. Unlike direct education efforts, engagement in new media does not present the same barriers that direct education may encounter such as transportation, childcare, or conflicts with work/school schedules. In fact, it increases the likelihood that greater numbers of at-risk individuals will have access to free, readily available, cultural and linguistically appropriate, stigma-free health promotion information.

Many young people are instrumental in finding novel ways to communicate with one another as well as access and use new media technologies. While social media as a prevention tool is in its infancy, this case study provides evidence of the benefits and challenges of incorporating new media strategies within a pendulum of prevention methodologies using a modality that many teens and young adults find relatable. Evidence from this study has found that new media has the potential to bolster the effects of prevention messaging. For example, our investigation found that social media increased the reach of prevention messaging within and beyond the focal community, improved community collaborations and communication, and connected young people to health promotion services including testing sites. However, in many resource-poor, marginalized, urban communities, new media technologies should be part and parcel of a broader prevention approach. Additionally, while it was difficult to measure which aspect of the new media prevention initiative had the greatest influence on improving behavioral outcomes, what can be said with certainty is that engaging young people in health promotion conversations and making the information more accessible will undoubtedly increase their social capital and inevitably lead to decreased health disparities.

## Recommendations for future research and prevention

Many of the prevention resources presently available, particularly those distributed by the U.S. government, lack cultural resonance since much of the existing prevention communications, tool kits and marketing collaterals are limited to the English language. More specifically, finding prevention content in Spanish was challenging (i.e., on AIDS.gov), especially materials from older campaigns. However, because of our considerable experience in providing health promotion campaigns to at-risk urban youth and young adults using a culturally competent social justice lens, we were able to create and customize content when needed. Federal agencies vested in health promotion desperately need to provide materials in different languages and for other groups disproportionately affected by this disease. We were not challenged to find content, as there are ample and strong resources available via national campaigns (e.g. Act against AIDS, SAMHSA,

CDC, Partnership, etc.) and have had success in teaching our Steering Committee on using these sites to augment their digital outreach. However, these elements of digital outreach have been difficult to assess and presented numerous challenges. Future investigations would benefit from a more intensive focus on how to measure efficacy in prevention research that incorporate or exclusively rely on social media strategies.

## Limitations

Despite the many programmatic gains, there were some initial limitations that impacted different aspects of this initiative. For instance, in regards to our Steering Committee and community partners, several were “late adapters” in understanding and using social media for awareness and education, especially those who were more accustomed to traditional strategies for HIV/AIDS and substance abuse work. Yet we found that trust within our common populations aided the MAI New Media work in which we were engaged, and enabled in overcoming this barrier. For example, we observed member agencies sharing our posts within their social media sites, which expanded the reach of both entities. Another barrier was the sensitive and confidential nature of the content topic, and at times became difficult to assess what behavior changes were made. However, based on the success in connecting numerous individuals to services and testing sites through our new media efforts, the secondary gains of our approach appears to be promising.

Also, our survey was made available digitally (via posts, e-blasts and a website tab) but some difficulties were experienced in obtaining responses. For instance, while multiple attempts were made to utilize digital advertisements (ads), the ad sets were often rejected by both Facebook and Twitter for security concerns. For example the words drugs and sex that directed users to an outside website, the survey site, were restricted. Regardless of the barriers noted above, evidence suggests that our new media outreach had an impact on event attendance. More specifically, when we broadcasted our events on our digital channels there appeared to be higher turnout, as opposed to when we only relied on partner organizations to promote the events. Additionally, survey data collected at the events indicated that many of the attendees became aware of the event through our social media channels.

Combating this epidemic has been a significant issue for residents within this city, having limited access to many of the resources necessary to reduce HIV/AIDS (e.g., quality doctors, testing facilities) and an overabundance of factors that increase risk (e.g., drugs, alcohol). Residents of Paterson also encounter other barriers - such as lack of information, stigma, language, and culture - to prevent and treat HIV and substance abuse. Our goal was to have our new media outreach efforts transcend some of these barriers to mitigate the health disparities experienced by our focal audience.

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