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"HIDDEN ON THE SOCIAL MEDIA": HIV EDUCATION ON MSM THROUGH CYBER-EDUCATORS IN CENTRAL AMERICA

Jorge Rivas, Jennifer Wheeler, Marcos Rodas and
Susana Lungo

Abstract

Most countries in Central America have HIV epidemics concentrated among men who have sex with men (MSM) and transgender women (TW), with prevalence in these populations ranging from 8% in Nicaragua to 26% in El Salvador. High levels of stigma and discrimination coupled with this heavy HIV burden create a major challenge for efforts to reach these populations and combat the epidemic. The Pan-American Social Marketing Organization (PASMO) developed a combination prevention intervention in Central America that delivers HIV prevention behaviour change communication (BCC) messages, products, services, and referrals to promote improved condom and condom-compatible lubricant use, HIV testing, violence reporting and the use of complementary services. As part of this program, an online "cyber-educator" intervention for MSM, consisting of virtual one-on-one BCC and HIV counseling and testing referrals, was launched through existing chat-rooms and websites. Participants were tracked using a confidential unique identifier code (UIC). In 2013, 7,219 MSM UICs were recorded. Created as a response to social media evolution, this intervention successfully illustrates how innovative HIV prevention education can reach populations most-at-risk for HIV.

Keywords: MSM, social media, peer educators, HIV, Central America

Introduction: HIV in Central America

The Central American region includes Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panamá. Approximately 380,000 people live with HIV in Central America, most of whom reside in El Salvador, Honduras, and Guatemala. Epidemiologic surveillance in the region suggests a concentrated epidemic in large urban areas, with prevalence among the general population ranging from 0.2% to 0.9%, with the exception of Belize, where HIV prevalence is 2.3% (UNAIDS, 2009). HIV prevalence is much higher among MSM (7.5% to 13% across the region) and TW 24% in Guatemala (Soto, R. et al, 2007) and 26% in El Salvador (Hernandez, F. Guardado, M. Paz-Bailey, G. 2010)— The only two countries that have collected prevalence data in this group.

Stigma and discrimination against sexual minorities is high in Central America. According to the public opinion study conducted by USAID/PASCA in El Salvador in 2011, 50% of the general population reported discriminatory attitudes towards high-risk groups, including MSM; 85.1% of respondents agreed that "people have the right to assault trans/transvestites for being who they are" and 72.4% disagreed that "transgender/transvestites have the right to have legal documents that identify them as women." HIV/AIDS-related stigma is also high, and there is widespread belief that people who are infected deserved their illness because of a wrongdoing usually linked to sex or illegal or socially disapproved behaviors. The same USAID/PASCA study cited above found 38.1% of respondents believed "female sex workers with HIV or AIDS

deserve it for their bad behavior." Another study conducted in El Salvador about Internalized Homonegativity (IH) in 2012 reveals that higher levels of IH shown to be a factor for higher risk behaviours and postponement of health care treatment and adherence (Andrinopoulos K, Hembling J. 2014).

A recent study conducted with 3,748 MSM globally found that perceptions of homophobia within the respondent's country functioned as a consistent barrier to accessing HIV products and services. Higher levels of homophobia were significantly associated with lower odds of access to condoms, lubricants, HIV testing, and HIV treatment. Similarly, MSM who reported that they would feel comfortable discussing HIV with a health provider were significantly more likely to report access and use of products and services (Ayala G. et al, 2013). Discrimination and stigma towards MSM by health care providers may also result in reluctance to access care, reluctance to disclose sexual behaviour or clinical symptoms of STI, negligence or substandard care on the part of the provider, or even refusal of service. (Chakrapani V. et al, 2007)

Homophobia and HIV stigma in Central America result in challenges reaching MSM with HIV prevention, treatment, and care, particularly those who are most socially vulnerable and thus most at risk. HIV prevention, treatment and care programs in the region must confront two key challenges: reaching a population that does not want to be identified and the overly close identification of HIV with sexual minorities, which may trigger further stigmatisation, as well as rejection by lesbian, gay, bisexual, transgender groups and communities who strive to downplay the role of HIV in sexual minority politics (Dibble, S. Roberts, S. Nussey, B. 2004). According to the UNAIDS 2013 Global report, the percentage of MSM reached by HIV prevention programs in Latin America remained unchanged, at 51%, between 2009 and 2012. The median condom use at last anal sex in 43 countries also remained unchanged at 57% over the same time period. This stagnation may be due in part to the social inequalities and traditional norms that reinforce stigma towards high-risk groups and in turn interfere with the effectiveness of HIV prevention programs (De Boni, R., Veloso, V., & Grinsztejn, B. 2014).

There is a need to identify better strategies to serve hard-to-reach MSM, including those who are isolated, who do not identify as gay, and who are married, with adequate, sensitive HIV prevention, treatment, and care programs. A new and promising mechanism for reaching these groups is offered by the Internet. This technology is both already used by men who seek sex with other men in many countries in the world, and is also already being adopted as a space where health-related information and referral services can be offered confidentially and securely (Caceres, C. Aggleton, P. & Galea J. 2008).

The PASMO program

The Pan-American Social Marketing Organization (PASMO), with regional headquarters in Guatemala, has the mission of improving the availability, access and use of information, products and key health services, through its social marketing techniques, aiming to significantly contribute to the development of an enabling environment that facilitates good health and a better quality of life for vulnerable people in Central America. PASMO, an affiliate of Population Services International (PSI), began operating in 1997 and has expanded its presence to all countries in Central America, with a local infrastructure in each of the seven countries. In 2010, PASMO and its partners began implementing the USAID-funded Combination Prevention for HIV in Central America and Mexico, with the objective of helping individuals make positive behavior changes and access HIV prevention products and health services by

providing a minimum package consisting of behaviour change communication (BCC) activities, biomedical interventions, and structural approaches.

The BCC activities are aimed to promote healthy behaviours and must involve a sequence based on the monitoring of prevention work. Traditionally these activities have included a series of methodologies that allow the target populations to interact with the educator and make the intervention more appealing and different. This component would not be complete if you do not have accessibility and availability of products to promote behaviour in this case condoms and water based lubricants. All educators must verify the availability of these products on site and/or nearby places so as to ensure that people can find them when needed.

The core component of combination prevention, named the biomedical, comprises all those actions of a medical nature - supporting clinical prevention efforts on HIV, such as STI screening, treatment, testing, detection of viral load, etc. This component must ensure that each share of combination prevention, people: a) constantly have access to sexual health checks (prophylaxis). B) In case of infections, carry out the treatment prescribed in doses and timing, following the doctor's instructions. C) When taking a voluntary HIV test, provide the pre and post counseling. All referrals for this component are made through numbered vouchers that allow the program to count these types of interventions.

The complementary or structural component are the services and/or products that complement the actions called "Combination Prevention", this is a series of products and/or services based on the specific needs of each population, actions to be considered at this level are: a) referral to support groups (stigma and discrimination, legal support, violence, etc., self-acceptance, nutrition programs (PVS) virtual etc.) b) Reference to Care centers for decreasing behavior related to alcohol/drugs.

Closing the Combination Prevention Cycle

By PASMO's definition, closing the combination prevention cycle includes ensuring that individuals are exposed to three BCC interventions, one services intervention (either HIV counseling and testing or STI screening and treatment) and one complimentary service referral.

A new intervention

Given the high levels of stigma, discrimination and violence in Central America, new technologies, such as computer-delivered interventions, could be an important means for reaching subgroups of MSM, such as those who are non-gay identified, or who may not feel safe through face-to-face interactions from gay or bisexual peers (Sullivan, P. et al. 2012). Some examples of interventions including educational websites and other more interactive theory-based interventions are shown by Rietmeijer & McFarlane 2009, which translate traditional behavioral interventions to an online format, such as computer-based counseling models or chat-room interventions. These recent advances in interactive and participatory Internet technologies (termed Web 2.0) have transformed the pattern of communication, including health-related communications (Eysenbach, G. 2008). Health communications programs have put forth efforts into identifying new opportunities for using social media to impact population health (Thackeray et al. 2008; CDC, 2014; Norman, McIntosh & Eysenbach, 2008; Vance, Howe, & Dellavalle, 2009). While the implementation benefits of these online interventions, including the ability to target multiple sites from a central operating location and the ability to use real-time data to target the busiest sites for improved reach are clear, (Caceres, C. Aggleton, P. & Galea J.) evidence about the effectiveness of these new interventions in achieving behavior change is emerging. Some studies have

shown that well-conceived, theory-based interventions can achieve short-term changes in proximal determinants of behaviour change (such as knowledge, self-efficacy, and motivation) and also on some key sexual risk behaviours, such as condom use during anal sex (Bowen et al. 2008; Carpenter et al., 2010).

As shown by Jones & Fox 2009, the use of social media has grown significantly in Central America over the past decade. Participation in social networking sites more than quadrupled between 2005 & 2009. In order to reach MSM, particularly hidden or non-disclosed MSM, in 2011 PASMO launched and currently implements an online outreach “cyber-educator” initiative that adapts face-to-face outreach to online and social media channels as part of the USAID Combination Prevention Program. The intervention is specifically designed to target young MSM, bisexual men and MSM who do not self-identify as “gay” in all program countries—those who were not being served by other outreach activities that are traditionally implemented in high-risk zones and other physical spaces.

The intervention consists of peer cyber-educators using chat functions to engage MSM in conversations about HIV prevention and initiate BCC activities. Framed in the stages of change model (Figure 1), cyber-educators use information divulged during the conversation to identify where in the behavior change process a user could be with regards to a specific and desired HIV prevention behaviour. The BCC engagement is intended to motivate the user to advance to a stage closer to the desired healthy behaviour.

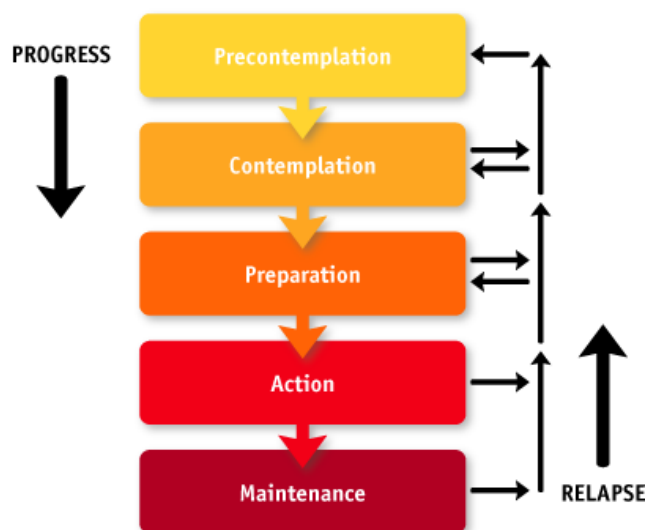


Figure 1: The Stages of Change Continuum (DiClemente and Prochaska, 1998)

When MSM disclose HIV risk behaviour, cyber-educators also provide online referral vouchers for HIV testing and counseling services in clinics where staff are trained and sensitized to provide services to the MSM/TW population. The online voucher system allows users to download vouchers that can be redeemed at partner institutions for biomedical services that are free of charge or provided at discounted prices. An emergent window also offers the user a list of all clinics available in each city. To download the voucher, a link prompts the user to enter data to create a unique identifier code (UIC) and print the online voucher. The UIC is used to track individuals throughout all the program’s intervention components and allows the program to identify individuals reached with each type of intervention (behavioral, biomedical or structural).

Table 1. PASMO's informational websites

Name	Target audience	Reach	Purpose
The "Generación Cero" initiative's Facebook fan page	MSM, FSW, Transgender	14,059 fans on Facebook in 2013	Inspired by the UNAIDS initiative to achieve zero discrimination, zero new infections and zero deaths related to HIV, PASMO launched this regional program to promote a respectful dialogue on issues of stigma, marginalisation, and discrimination. The initiative emerged as a result of a PASMO regional study conducted to understand the dynamics of discrimination and stigma related to HIV and vulnerable populations in the region from the perspective of those who discriminate. The values and principles on which this movement is based are respect, acceptance, and equity. A new Facebook fan page was created and is used as a complementary tool to share messages, experiences and legal claims.
Y ahora qué? website	PLHA	7570 visitors in the webpage and 4395 fans by 2013 on Facebook	A web site portal to provide information and support for people living with HIV, their families and friends, specific to Central America. The portal contains information about experiences from users, HIV-related news, reference and contact information for services and organisations, chat portals, quizzes and virtual self-support groups. www.yahoraque.info
Mi zona H website	Heterosexual men and MSM	7626 visitors in the webpage and 30,720 fans by 2013 on Facebook	Campaign and associated website about masculinity called "Hombres de Verdad." Formative research was used to develop archetypes that define different types of machismo a masculinities, which are presented in the campaign and website www.mizonah.com

Peer outreach workers were recruited and trained as "cyber-educators" to deliver the intervention. The outreach workers were trained in the use and management of online tools and social media for the purposes of behaviour change communication. In each country, local teams conducted a formative assessment to identify the most popular websites, chat rooms and social networking sites used by the target population and their patterns of use, including the times of day or night when they were most frequently online. In all countries, the most popular mechanism through which to conduct the online outreach is Facebook. Other country-specific sites like gayguatemala.com are also used.

Given the vast amount of information available on the Internet, cyber-educators must be well versed and prepared to discuss subject matter that is of educational importance and interest to MSM and TW. In addition to the online outreach activities, PASMO developed informational websites that are tailored to the program's target groups and cover specific topics, such as stigma and discrimination, HIV information, and masculinity (Table 1). The online outreach activities and websites are integrated in that the websites serve as a resource for cyber-educators and as a place to refer users to further HIV prevention information. Constant communication between the cyber-

educators and the Webmaster at the regional PASMO office keeps the material on the websites current and responsive to input from the online outreach activities.

Description of the websites created by PASMO

Monitoring activities is keen when tracking the success of the Combination Prevention Program. A series of procedures and tools are constantly implemented to track the reach of all activities across the region:

a. SAM

SAM is the Activities Monitoring System, which allows the program to enter, store, analyse and generate reports related to all Combination Prevention components; Interpersonal Communication Activities (IPC), Biomedical and Structural. Each site in the region enters their activities, biomedical vouchers and trainings. Monthly, information is exported and sent to the Regional Office, where is consolidated into a central database. In addition, adjustments to overall system configuration, including settings in the various lists interface databases are established and managed from the Regional Office.

b. The Cyber educators portal (www.cibereducadores.com)

Recently launched, this website was created as a complement to the monitoring system and a resource for the difficult labour of tracking online interventions. The website has three main functions: a) Serve as a data-entry source for cyber-educators. b) Transfer information of all online outreach activities to the MIS (SAM). c) Generate unique links to be sent to the users which allow to track the interaction of the user with the link sent and determine if the person opened the link, accessed the website, the frequency of access, and if they downloaded the biomedical voucher for the test or not.

Findings

The cyber-education intervention results

The online outreach activities are now implemented as a mechanism for delivery of BCC through the Combination Prevention Program in all of the Program countries. Using UIC, individuals were tracked through the program interventions and across the services offered by implementing partners. Based on the MIS records (Table 2), during 2013, PASMO was able to reach 7,219 individuals through online peer education activities across Central America. The Program in Nicaragua not only reached, but also doubled its initial target of 1,300, providing online outreach interventions to 2,647 individuals. A total of 2,515 referrals for HIV testing services were provided in 2013 (both online and through face to face interventions) and 145 individuals reached with online activities were counseled and tested for HIV at partner clinics that were trained by PASMO to provide services to MSM.

During the same calendar year, 836 individuals completed a minimum of one BCC intervention, one biomedical intervention and one complementary referral, and 126 (15%) of those 836 closing the cycle did so by participating in at least one online outreach activity (table 1).

The online format of the cyber-educator intervention facilitates the collection of monitoring data that includes: unique identifier code (UIC), type of message delivered, population; and can be used to provide rapid feedback to the program, making the

program flexible and responsive. New monitoring data fields can be tracked to assess the implementation of activities. For example, in Costa Rica an increase in duration of online activities from 10 to 20 minutes (on average) demonstrates greater engagement and exposure to the BCC intervention.

Table 2. MIS Records: Regional PASMO Combination Prevention interventions January to December 2013

	El Salvador	Panamá	Nicaragua	Costa Rica	Guatemala	Belize ¹	Regional
Face-to-Face BCC interventions ²	5220	5395	338	902	4217	493	16565
Online BCC interventions ²	382	1188	2647	839	2155	8	7219
Biomedical interventions ²	540	366	273	202	995	139	2515
At least one BCC intervention, one biomedical service and one complementary referral ²	146	52	N/A	78	399	35	710
At least one online BCC intervention, one biomedical service and one complementary ²	13	34	12	10	57	0	126

The quality and consistency of implementation, however, is difficult to monitor and requires extensive support and supervision. PASMO uses three mechanisms for quality control: 1) reviewing past chat conversations to ensure quality of the intervention; 2) supervising the delivery of the intervention during implementation, and 3) reviewing activity reports provided by the cyber-educators.

The interactive nature of social media also allows users to provide instantaneous feedback and facilitates follow up, both on the cyber-educator and on the user side. Throughout the course of implementation, many users have returned to the webpages to share their HIV test results after having received a referral and to obtain follow-up and support. In Panama, in-person follow-up was provided by cyber-educators to users initially reached online. This follow up consisted of accompanying users to receive counseling and testing, facilitating the use of the referral voucher, and ensuring that they felt safe and confident during the HIV testing process.

No quantifiable information exists about the impact of the cyber-educators component in the change of HIV risky behaviours of the MSM in the region. As part of the evaluation of the Combination Prevention program, PASMO will conduct a quantitative study in 2015 to gather information from a representative sample of the target population. The data collected from this study will allow the program to measure health behaviours, and knowledge and use of health products in the target population over time. From this study programmers will be able to measure effectiveness of the different components of the program including the exposure to the cyber-educators component.

¹ Belize program was starting the online interventions program in 2013.

² Numbers reflect the quantity of individuals that received this type of intervention, based on the UIC.

The websites interaction

Traffic on the program websites is high and the number of hits and likes for the webpages has grown significantly:

- The "Generación Cero" Facebook fan page (focused on reducing stigma and discrimination) grew from 530 fans (persons who liked the fan-page) in 2012 to 14,059 in 2013, an increase of 13,529 new fans during the last year. By the end of 2013, the fan page had 177 twitter followers and 60 tweets.
- The "Y ahora que?" webpage had a total of 7,570 visitors by September 2013—60% of whom were new visitors. This web site also has a fan page on Facebook, which earned a total of 3,457 likes in 2012 and 4,395 in 2013. In 2013 it had 938 new fans, 285 posts and 338 twitter followers.
- "Mi zona H" webpage had a total of 7,626 visitors in 2013, 74% of whom were new visitors. The success of this web page on the Facebook fan page in the last year is tangible, increasing from 7,667 fans in 2012 to 30,720 in 2013, which indicates in the most recent year, the webpage earned 23,053 new fans—and increase of over 300 percent. Mi zona H had also 80 twitter followers and 172 posts.

Discussion

Reaching hidden populations with HIV programs has been challenging due to various social and political barriers in Central America. HIV programs in the region have worked hard to overcome these barriers. This article describes a pilot program that explored whether advances in social media could be used as an alternative or a complement to traditional health communication channels in Central America. PASMO has found that using virtual chat and web-based approaches for HIV BCC interventions successfully reached a different cohort of MSM population, as evidenced by UIC emerging from the online program that are not previously registered through other interventions (Table 3). Some of those reached online also went on to receive other program interventions, including counseling and testing services.

Table 3. Age ranges of MSM exposed to online activities in 2013, by country.

Age range	Country					Total
	Guatemala	Costa Rica	El Salvador	Nicaragua	Panama	
20 years old or younger	18.1%	14.4%	26.7%	21.7%	26.7%	20.9%
21 - 24	29.0%	26.0%	31.9%	28.4%	27.0%	28.2%
25 - 30	29.4%	26.1%	23.8%	33.0%	24.3%	29.2%
31 - 35	14.4%	13.2%	11.5%	9.9%	10.0%	11.7%
36 - 40	5.2%	9.6%	3.1%	4.0%	7.1%	5.4%
41 years old or older	4.0%	10.7%	2.9%	3.0%	4.9%	4.5%

From 2011 to 2013 more than 10,000 individual MSM were reached through online activities, which represents nearly one-third (31%) of the total population of MSM and TW reached by PASMO with prevention services in Central America. Using the Facebook interactive platform as a resource has made possible to have more than 30,000 persons aware of at least one of the resources available online, according to the fans reported. The use of online activities for the Combination Prevention Program is growing—in Nicaragua, PASMO is no longer implementing BCC activities directly, and

now exclusively implements interventions through training and supervision of subcontracted NGOs, making the implementation of online approaches a key component of the overall intervention in that country.

Traffic on the various program websites has also grown significantly; in some cases even more than 10 times from one year to the next. Having thousands of new visitors and "fans" represents an important opportunity to continue delivering messages to a growing audience and maximizing the instant access to information that the internet provides. As an educational program, being present in the popular sites and resources, not only gives the program more exposure but also relevance and credibility, since most of internet users are constantly looking for trends and popularity.

Online interventions have the potential to greatly contribute to HIV prevention programs in the region because they can reach a different demographic within the target group, or serve as an entry point to other interventions, such as counseling and testing. Several projects in Central America deliver HIV prevention activities through face-to-face approaches or interpersonal educational interventions. Online interventions are a new tool and, if expanded, properly implemented, and integrated into a program that allows for follow up support and services, can improve access, coverage and plausibly improve the effectiveness of combination prevention programs for HIV prevention, treatment and care. The online approaches used by the Combination Prevention Program in Central America are designed so that any organisation inside or outside the region can use the materials and tools as references.

The cyber educators program has been able to reach a different cohort of MSM from those reached with face to face interventions; however it is important to understand that other populations in the region have high HIV prevalence. There is no substantial evidence that this program can be replicated with transgender women or female sex workers, and if that were necessary, it represents another series of limitations and challenges that need to be addressed.

Conclusion

As technology and social media continue to develop, new communication technologies represent an opportunity that cannot be ignored. PASMO's experience with cyber-educators in Central America has been successful in targeting and reaching MSM with key HIV BCC and referral services. Although a new intervention, web-based communication now makes up a third of PASMO's BCC interventions through the Combination Prevention program, with traffic on websites including more than 12,000 new visitors only in 2013.

Because the Internet is a global tool with increasing coverage, it ensures that this strategy can be replicated in almost any country where the Internet is accessible to a large segment of the population. Using this strategy also becomes important when target populations are difficult to reach through traditional methods, such as interpersonal communication programs. The use of online media provides the opportunity to instantly link the individuals to different sources of information which are not easily replicated in person.

After three years of implementation, some important lessons and limitations in the implementation of web-based communication programs are:

- Some other populations with high HIV prevalence in the region, such as Female Sex Workers and Transgender women, represent a challenge for this approach. The cyber-education approach is primarily designed from the MSM perspective, which may be irrelevant to these groups.

- Both FSW and TGW have lower SES and educational attainment than MSM, two factors that are significantly associated with internet access within the region, thus limiting the effectiveness of cyber-educators as a viable intervention.
- Tracking the virtual vouchers is a challenge in some clinics, particularly when they have not been trained properly. In some clinics biomedical interventions were recorded with no differentiation between personal and virtual referrals because of lack of training.
- There is no scientific evidence about the impact of this program on changing HIV risk behaviours, however, a new study will be conducted in 2015 aiming to respond to these premise.
- Cyber-educators need to be trained intensively on the communication process and be mentored for a substantial period after that. Online conversations can be difficult to redirect and manage and the skills necessary to ensure proper implementation of the intervention are not easily learned. Refresher trainings are important to keep cyber-educators updated on health information and new approaches.
- Continuously monitoring the program is crucial in order to keep content updated and relevant. Monitoring popular trends among the target group allows the program staff to make adjustments immediately, before losing users' interest.
- Online approaches have the potential to grow rapidly. It is challenging to adequately and continuously monitor the quality of the educational interventions and ensure rapid and efficient responses when required.
- More evaluation activities are needed to determine the effectiveness of these approaches and their impact on motivating users to seek HIV counseling and testing and other services.

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Biographical Statements

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Susana Lungo is the PASMO deputy Director and COP of the USAID Combination Prevention Program. She has specialized expertise in brand management, new product positioning and communication, consumer research and evaluation. Ms. Lungo has also extensive experience in Social Marketing, Behavior Change Communication and knowledge in HIV/ AIDS and STI prevention methods.