

# Innovative strategies using communications technologies to engage gay men and other men who have sex with men into early HIV testing and treatment in Thailand

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## Abstract

**Objectives:** One-in-three men who have sex with men (MSM) surveyed between 2007 and 2010 in Bangkok were HIV infected; 54% of new infections in Thailand are expected to be among MSM. Although MSM are the top internet-accessing population in Thailand, it has not been optimally used to scale up early HIV testing and counselling (HTC) and linkage to treatment. Thailand needs innovative technology-based strategies to help address the exploding epidemic of HIV among gay men and other MSM.

**Methods:** Adam's Love, an innovative web-based communications strategy, was launched in 2011 by the Thai Red Cross AIDS Research Centre. It includes a dedicated website, integrated social media and web message boards for online counselling, recruitment and appointment making, a club membership programme offering non-financial incentives for HTC, targeted marketing and promotions, and collaboration with MSM-friendly clinics and private hospitals to improve accessibility of HTC services.

**Results:** Between September 2011 and January 2015, the website engaged 1.69 million viewers, and gained more than 8 million page views. An estimated 11,120 gay men and other MSM received online counselling; 8,288 MSM were referred to HTC services; 1,223 to STI testing services; and 1,112 MSM living with HIV were advised regarding HIV treatment. In total, 1,181 MSM recruited online were enrolled in the club membership programme, and 15.5% were diagnosed with HIV.

**Conclusions:** The Adam's Love programme has successfully demonstrated the potential for utilising 'online-to-offline' recruitment models in Thailand, and has attracted national and regional recognition as a trusted resource on HIV and referral to testing and care.

Keywords: HIV testing and counselling, communications technology, online outreach, men who have sex with men, Thailand

## Introduction

Although Thai men who have sex with men (MSM) are estimated to contribute 40% of the country's new HIV cases during 2012–2016, their testing rate is low at 29% [1,2]. Outreach to Thai MSM has relied on traditional models, such as use of outreach workers and creation of walk-in clinics for HIV testing. Only 7% of MSM reached through these traditional models under Thailand's Global Fund Round 8 Program received HIV testing [3]. In most conventional HIV testing programmes, no more than 50% of MSM who come for HIV testing are first-time testers [4]. The lack of integrated online and offline service delivery models makes it difficult to access the 'hard-to-reach' MSM population.

## MSM and the internet in Thailand

Gay men and other MSM continue to face stigma and discrimination in society, and have frequently sought the confidentiality that the internet offers for social interaction and seeking information. Thai internet users top the world in social network access, being 20% higher than the global average [5], which has happened in parallel with the rapid national growth in 3G mobile services. Thailand now ranks as the second largest LINE user (a free communications application, which allows users to make voice calls, video conferences and send messages on

electronic devices such as smartphones, tablet computers and personal computers) after Japan and the third largest Facebook user in the world [6,7]. In terms of gender-based internet access, those who identified themselves as 'third gender' (e.g. not self-identifying as male or female) spent the most time on the internet at 62.1 hours a week (8.8 hours a day), followed by men (51.8 hours/week) and women (49 hours/week) [8]. Facebook (87%) was the most popular social networking platform, ahead of YouTube (75%), Google+ (27%) and Instagram (20%) [5]. Out of the total of 24 million Facebook accounts in Thailand (by 1 October 2013), more than 320,000 users (1.34%) of users identified themselves as men who are interested in men [9].

## Reaching networks of open and closeted gay men and other MSM online

The internet has become the main source of medical information for gay men and other MSM, facilitating searches on sexual health in private and safe spaces. In Thailand, information on the availability of HIV prevention methods, and friendly and confidential HIV testing and treatment services have not been completely disseminated to gay men and other MSM. A key barrier has been the lack of effective strategies to promote credible sources of HIV information on the web. Use of non-specialist websites and blogs can yield misleading information. Examples include inaccurate self-risk assessment, patients stopping antiretroviral therapy (ART) believing they are cured, and the promotion of traditional or herbal medications as a replacement for antiretroviral therapy.

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In response, Adam's Love ([www.adamslove.org](http://www.adamslove.org)), launched by the Thai Red Cross AIDS Research Centre in September 2011, was intended to be an integrated public–private sector social media strategy that would resonate with the MSM audience in terms of design, creativity, reliability and information. Specific objectives included impacting scale-up of early HIV testing and treatment, increasing HIV-related awareness and knowledge, and positively influencing attitudes, beliefs, and behaviours about HIV among MSM in Thailand.

In Bangkok, only about 33% of MSM have had an HIV test in the past year. Among them, 43% usually undergo HIV testing at private hospitals, 39% at MSM-friendly clinics and 18% at public clinics (Chomnad Manopaiboo, personal communication). To increase testing rates among undiagnosed gay men, other MSM and transgender (TG) individuals, the Thai Red Cross AIDS Research Centre and Adam's Love collaborated with private hospitals and gay, other MSM and TG drop-in centres in Bangkok, to support the establishment of MSM-friendly HIV testing and counselling (HTC) services. Those who were reached through the Adam's Love website and social media platforms were referred to the Men's Health Clinic at the Thai Red Cross AIDS Research Centre and partner HTC service centres.

## Methods

### Adam's Love website and social media campaign

Adam's Love offers reliable and comprehensive HIV information to the Thai MSM audience with promotional messages designed and focused on promoting early HIV testing and treatment. The Adam's Love strategy includes a dedicated website ([www.adamslove.org](http://www.adamslove.org)) serving as a one-stop HIV/AIDS resource featuring expert advice and virtual tour videos of HIV testing and treatment centres, an interactive 'online mapping system' for identifying MSM-friendly HIV testing and treatment sites across Thailand, Adam's Love club membership programme offering a comprehensive HIV prevention package and non-financial incentives (e.g. t-shirts, smartphone cases) as a way to increase engagement in sexual health services, integrated social media and web message boards for online counselling, recruitment and appointment making, and MSM-focused entertainment media such as fashion photography and online YouTube videos of male celebrities and gay personalities promoting testing into the media campaign. Adam's Love combines traditional print media with online strategies, including holding large-scale press conferences engaging national and International media and placing billboards in strategic locations promoting safe sex and HIV testing messages. These guide MSM to the Adam's Love website and social networking sites where they can increase their knowledge about sexual health and be linked to clinical services.

### Adam's Love 'Online-to-Offline' recruitment model

Generating demand for HTC among MSM using a creative combination of online and offline media is imperative to foster earlier detection of HIV infection, counsel MSM at risk for HIV infection and those with undiagnosed HIV infection, and link them to clinical and prevention services. Adam's Love initiated the 'online-to-offline' recruitment model in Thailand where gay men and other MSM are reached over the website and linked social media networks, web message boards and email, where trained MSM-friendly nurses and technical staff interact with them to provide HIV prevention counselling and refer high-risk MSM to HTC and those infected with HIV to treatment services (Box 1).

#### Box 1. The Adam's Love recruitment methods to reach MSM at risk of HIV infection and facilitate HIV testing and counselling referrals in Bangkok

1. MSM register for the service via Facebook, web message board, email, LINE
2. Adam's Love online technical staff attempt to build relationships with the interested MSM, assess their risk and encourage MSM to undergo HIV screening by sharing HIV-related information, answering questions, and offering confidential individualised counselling.
3. Staff recommends 'Testing Site Near You', an online feature where MSM can choose the nearest available MSM friendly testing site
4. MSM select a convenient site and reply by message via preferred social media. Phone numbers are confidentially shared and appointment is made. When the individual arrives at the clinic, Adam's Love technical staff are immediately informed.
5. Adam's Love staff coordinate with the clinic or private hospital staff for appointment.
6. MSM are advised to tell the receptionist that they would like to receive 'Adam's Love' promotional services when they arrive at the clinic or the private hospital to register for HIV testing. This strategy has proven successful at all the linked HIV testing sites and is a model to help reduce stigma around HIV testing and MSM.
7. MSM undergo pre-test counselling, phlebotomy and post-test counselling.
8. MSM receive Adam's Love merchandise (e.g. t-shirts, smartphone cases) and are advised to undergo routine HIV testing at least twice annually.

### Tracking impact

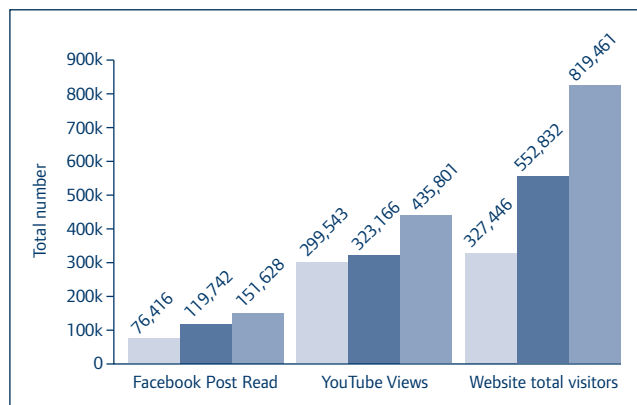
MSM recruited online who presented for HTC at the Thai Red Cross AIDS Research Centre and five partner private hospitals were enrolled in the club membership programme and asked to complete a survey about demographic information, sexual behaviour and HIV testing. Adam's Love club membership cards numbered consecutively were issued to MSM and linked to individual database and survey response for tracking and evaluation.

Analytical tools using Google (total visitors, page views, visit duration, user demographics, search engines and search keywords), YouTube (lifetime views, traffic sources and devices used) and Facebook (page fans, fan demographics, people reached and page message) were used to measure Adam's Love online engagement of MSM between September 2011 and January 2015 (Figure 1).

## Results

### Behavioural survey

Data were available for 1,181 MSM recruited online: 764 MSM (64.7%) received HTC services at the Thai Red Cross AIDS Research Centre and 417 MSM (35.3%) received private hospital HTC services. The HIV prevalence among MSM was higher at the Thai Red Cross AIDS Research Centre (17.8%) as compared to private hospitals (11.27%); however, the condom use rates were lower among MSM seeking private hospital services as almost one-fifth (17%) reported never using a condom in the past month. Of the total 1,181 MSM recruited online, the majority were in the age group 14–25 years (48.3%), most identified themselves as gay or MSM (92.3%) and one-third (33.9%) were discreet about disclosing their gender identity in the society, almost one-fifth (18.7%) reported having had between 5 and 20 sexual partners in the past month, and most MSM (66.1%) planned to take their next HIV test within 3–6 months (Table 1).



**Figure 1.** Adam's Love website and social network engagement metrics analysed as of January 2015.

■: Year 2012; ■: Year 2013; ■: Year 2014.

**Social media analytics**

Of 1.69 million total viewers visiting [www.adamslove.org](http://www.adamslove.org), 37.4% were visitors who typed the website address directly into the browser or clicked a link to it. More than half (51.6%) visited the website because of Google searches and the top search keywords included 'HIV/AIDS test', 'anonymous clinic', 'nucleic acid testing (NAT)', 'HIV symptoms' and 'antiretroviral (ARV)'. The website garnered 149 million hits and gained more than 8 million page views with an average visit duration of 4.58 minutes per visitor. Thailand (88.38%), USA (6.37%), UK (1.09%), China (1.05%) and Japan (0.96%) were the top visiting nations.

Of approximately 1.05 million YouTube views, 247,195 views (24.7%) resulted from a direct search on YouTube and Google.

YouTube's individual video page on YouTube.com and YouTube apps was the primary playback location (77%) and mobile devices and tablets (56%) were the leading platforms for watching videos followed by desktop computers (41%) in 2014.

The Adam's Love Facebook page engaged 35,027 male fans and followers primarily in the age ranges 13–17 (12%), 18–24 (37%) and 25–54 (28%) years. HIV testing and treatment messages reached 347,786 people. The Facebook online private message option was the primary channel for recruiting MSM into HIV testing.

**The shift away from traditional desktops to mobile and tablet platforms**

Between 2012 and 2014, a continual shift from desktop to mobile and tablet devices was observed (Figure 2), resulting in rapid growth in the use of the Adam's Love website and YouTube videos, and the numbers of social media viewers and visitors (Figure 1). In 2014, mobile phones and tablets (55.3%) emerged as the leading platforms for accessing Adam's Love online channels.

An estimated 11,120 gay men and other MSM received online counselling through Adam's Love's Facebook (47%), email (36%), web message boards (14%) and related social networks (3%). The top questions included:

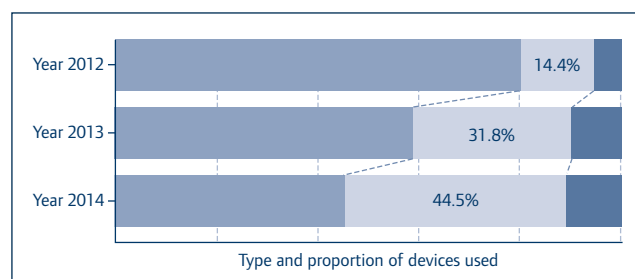
- ▶ Risk assessment of sexual behaviour for HIV/AIDS (35%)
- ▶ How to access free and anonymous HIV testing, and what are the procedures and costs involved (22%)
- ▶ People living with HIV-related inquiries such as where and how to access antiretroviral treatment and support, costs involved, and nutrition advice (11%)
- ▶ Where to access nucleic acid testing (NAT) for acute HIV infection (9%)
- ▶ How and where to get diagnosed and treated for sexually transmitted infections (9%)
- ▶ What the symptoms of HIV are (6%)
- ▶ How to access emergency medications such as post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP) and what are the side effects (4%) (Figure 3).

Of those counselled, 8,288 MSM were referred to HIV testing services and 1,223 to STI testing services available in Thailand; 1,112 MSM living with HIV were advised on where and how to access HIV treatment medications; and 278 MSM were advised on emergency HIV medications such as PEP and PrEP.

In 2012, the counsellors at the Men's Health Clinic at the Thai Red Cross AIDS Research Centre reported that Adam's Love contributed to an approximately 25% increase in MSM patients who received HIV testing at the Thai Red Cross AIDS Research Centre, the largest HIV testing centre in Thailand [10]. Over the full evaluation period, the MSM clients receiving HIV testing at

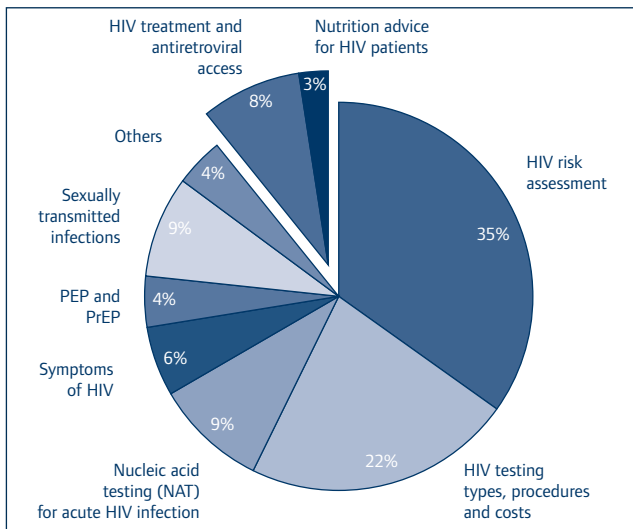
**Table 1.** Characteristics of MSM recruited online through the Adam's Love website at partner clinics and hospitals in Bangkok (n=1,181).

	Men's health clinic (n=764)	Private hospitals (n=417)
<b>HIV status</b>		
Negative	628	370
Positive	136 (17.8%)	47 (11.27%)
<b>Age group, years</b>		
14–18	35 (4.6%)	13 (3.1%)
19–25	335 (43.8%)	188 (45.1%)
26–35	314 (41.1%)	174 (41.7%)
36 up	80 (10.5%)	42 (10.1)
<b>Gender identity</b>		
Gay or MSM	701 (91.7%)	389 (93.3%)
Bisexual	51 (6.7%)	21 (5%)
Transgender	12 (1.6%)	7 (1.7%)
<b>Disclosure status of gender identity</b>		
Open (out)	525 (68.7%)	256 (61.4%)
Discreet (hidden)	239 (31.3%)	161 (38.6%)
<b>Number of sexual partners in the past month</b>		
≥5	625 (81.8%)	330 (79.1%)
5–20	135 (17.7%)	86 (20.7%)
20–50	4 (0.5%)	1 (0.2%)
≤50	0	0
<b>Condom use in the past month</b>		
Always	378 (49.5%)	178 (42.7%)
Sometimes	217 (28.4%)	114 (27.3%)
Never	66 (8.6%)	71 (17%)
No sex in the past month	103 (13.5%)	54 (13%)
<b>Planned interval for next HIV test</b>		
Within 3 months	190 (24.9%)	112 (26.9%)
3–6 months	331 (43.3%)	147 (35.2%)
6–9 months	67 (8.8%)	33 (7.9%)
9–12 months	26 (3.4%)	19 (4.6%)
More than 12 months	15 (1.9%)	19 (4.6%)
Not sure	135 (17.7%)	87 (20.8%)



**Figure 2.** Devices used by MSM for accessing Adam's Love website and social media networks.

■: Desktop; ■: Mobile; ■: Tablet.

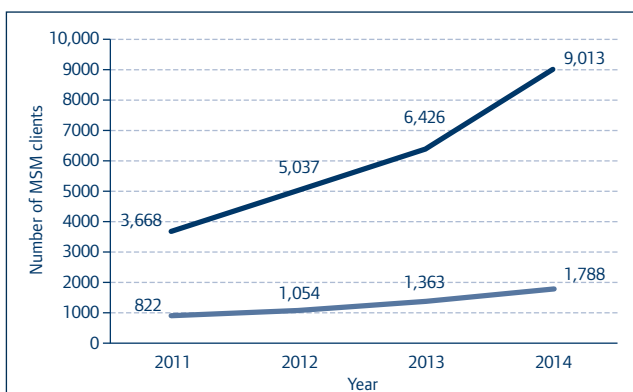


**Figure 3.** Top questions by MSM on Adam’s Love online HIV counselling and support platforms

the Men’s Health Clinic almost tripled from 3,668 to 9,013 (Figure 4).

**Discussion**

MSM use new forms of technology at higher rates than the general population [11–14]. Additionally, a substantial percentage of MSM use the internet to look for sex partners [15], and those who seek sexual partners on the internet are at increased risk for HIV exposure and transmission through their risk behaviours [16–21]. Our study illustrated that the innovative online-to-offline platform of Adam’s Love was able to recruit MSM at high risk for HIV into HTC services. Of the 1,181 MSM who accessed HTC services, almost half did not use condoms consistently and about one-fifth had between 5 and 20 sexual partners in the past month. Through our programme, 16% of previously undiagnosed HIV cases were identified. Our results align with a feasibility study conducted by Zou *et al.* showing that internet outreach is a promising way to encourage MSM to seek HIV testing at existing voluntary counselling and testing clinics, and active recruitment can target MSM who are younger, never tested for HIV or tested less often [22]. We found that the majority of the MSM recruited online into HTC services in our programme were young (half were 14–25 years old). Moreover, we also learned that online recruitment was a channel to reach out to closeted MSM as one-third (34%) were discreet about disclosing their gender identity. Some evidence suggests that MSM who undergo HTC are likely to return for repeat



**Figure 4.** Changes in numbers of MSM clients at the Thai Red Cross AIDS Research Centre during implementation of the Adam’s Love communications strategy.

■: MSM clients; ■: HIV-positive MSM clients

testing [23,24]. In fact, 66% of MSM who presented for HTC in our programme had planned to have HIV testing again in the next 6 months. With internet-accessing behaviour shifting away from desktops, creating strategies targeting mobile and tablet users is essential. A qualitative study conducted in the US suggested that mobile technologies are widely used and are an acceptable means for HIV intervention among young black MSM [25]. Our online metrics also indicated that mobile phones and tablets (55%) are emerging as the leading platform, which is likely to have resulted in the rapid growth of Adam’s Love website users.

Our study has some limitations. First, for confidentiality, we did not collect sensitive personal and risk-behaviour information on the users. Second, for clients who were newly diagnosed with HIV through this programme, we did not have data on antiretroviral treatment (ART) initiation and adherence as ART in Thailand is managed through a large network of government and privately run ART clinics and tertiary hospitals. Third, our programme recruited a small proportion of transgender individuals into HTC services and the data are more likely to be biased towards gay men and other MSM. The needs of transgender individuals are different to other MSM and it will be important for us to focus on the specific needs of this population.

Nevertheless there were several strengths of our programme. First, we created an integrated communication strategy, which included a dedicated website and linked social media networks, video-based interventions, traditional print and online media, online counselling and recruitment and non-financial incentives. Collaboration with MSM-friendly clinics and private hospitals to improve accessibility of HTC services into a single programme was key. Second, our programme illustrated that coordination between clinic staff and online staff created an optimal ‘online-to-offline’ recruitment model. Third, our data suggested that MSM who seek HTC services at private hospitals tended to be more closeted or discreet about disclosing their gender identity as compared to those who seek public clinic HTC services. These data may be important to designing appropriate government services to reach hidden MSM.

Innovative technology-based interventions can aid in the scale up of online counselling and HTC services uptake among MSM [26,27]. For MSM who seek HIV-related information online, a major challenge remains to distinguish credible from misleading information on the internet. Reliable, compelling and targeted media content supported by MSM-specific online HIV counselling and support can be key components of the decision-making process for gay men and other MSM to access HTC and HIV treatment services. Our programme attracted 1.7 million national and international viewers as a resource on HIV and referral to testing and care. Previous studies on internet recruitment have suggested investigating ways to ensure trust in the online information by users and to find attractive incentive structures [28]. Here we demonstrated that the ‘edutainment’ content and non-financial incentives offered by our programme successfully engaged MSM into HTC services.

Innovative technology-based strategies should be used to engage MSM into HIV testing and care. In this digital age where MSM are closely connected, the internet and social media can spark word of mouth on MSM-friendly services and facilitate positive social experiences that could encourage MSM to follow through with HTC recommendations. These have the potential for being critical channels for healthcare providers to design positive strategies that resonate with the MSM audience and foster trust with the MSM community seeking virtual spaces to learn about HIV prevention, testing and treatment. To develop an optimal

‘online-to-offline’ recruitment model and strengthen HTC programmes, it is important that healthcare providers and other clinic staff work in close coordination with the online technical staff. To evaluate and enhance successful linkage to care, stronger partnerships with HTC providers and ART clinics to gather healthcare utilisation data are needed. Such technology-based interventions should integrate the private sector for wider outreach and impact [29]. Our programme fostered a strong partnership with the private sector that included the healthcare, technology, fashion and entertainment industry as well as marketing and public relations firms. Assumptions that the different social media are not effective for HIV programming for MSM or that they are for the few who are active on social media networks are increasingly less valid. These social media-based strategies create centralised pathways that can be more efficient than traditional outreach methods. However, in order for programmes to be effective, continuous support from national health systems, HTC and other healthcare providers, and the private sector is needed.

Other recommendations for establishing successful online HTC recruitment programmes include prioritising long-term strategies and partnerships with the public health and private health, commercial and marketing sectors, and building a strong online reputation. Priorities for the user side include having content that reduces stigma associated with being MSM and seeking sexual health services, creates safe and confidential spaces for online counselling and support, and fosters positive relationships which build trust and encourage online participation and interaction.

## Conclusions

Gay men and other MSM are using the internet to seek online support and advice on their risk assessment for HIV infection, MSM-friendly HTC services, emergency medications such as PEP and PrEP, and HIV treatment. The Adam’s Love programme has clearly demonstrated the potential for utilising an ‘online-to-offline’ recruitment model in Thailand, and has emerged as a reliable resource on HIV and for referrals to testing and care. These types of innovative technology-based interventions can help scale up HTC service uptake among gay men and other MSM.

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## Disclaimer

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