

Social Media Use

Among Most-at-Risk Populations in Jamaica

April 2012



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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
BGCLive	Black Gay Chat Live
C-Change	Communication for Change
FHI 360	Family Health International 360
FSW	Female sex workers
HIV	Human Immunodeficiency Virus
IRB	Institutional Review Board
JFLAG	Jamaica Forum for Lesbians, All-Sexuals, and Gays
LGBT	Lesbian, gay, bisexual, and transgender
MARPs	Most-at-risk populations
MOH	Ministry of Health
MSM	Men who have sex with men
MSW	Male sex workers
NHP	National HIV/STI Programme
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
SBCC	Social and behavior change communication
USAID	United States Agency for International Development

Executive Summary

FHI 360's Communication for Change (C-Change) project in Jamaica, funded by USAID/PEPFAR provides technical assistance in social and behavior change communication (SBCC) to improve the quality and scale of Jamaica's current response to the HIV and AIDS epidemic. In 2011 C-Change conducted a study to explore the frequency and type of social media used in Jamaica by most-at-risk populations (MARPs), specifically sex workers and men who have sex with men (MSM) to inform communication programs working with these audiences.

A review of the literature indicates that social media may serve as an effective tool to reach audiences with HIV and health information and messages (Centers for Disease Control and Prevention 2011). It is believed this may have even greater applicability for programmers attempting to reach marginalized and vulnerable populations, such as sex workers and MSM (Bowen, Keith, and Williams 2007). To date, few studies have been conducted in the Caribbean regarding the use of social media, whether web- or mobile phone-based, to improve health programming. Anecdotal data from the MSM community in Jamaica tell of high use of social media sites, blogs, and chat rooms to meet partners, friends, and to build their networks. In addition programs in Jamaica focusing on sex workers currently use text messages to reach this population.

This study examined the use of cell phones and the Internet, including social media, for communication and preferences for receiving health information. It was found that cell phone use and text messaging were high in Jamaica among the target audiences. Both the MSM and male sex workers (MSW) sent and received pictures, videos, and sound clips from their phones (77.8 percent, n=343; 57.6 percent, n=34, respectively). Few female sex workers (FSW), however, reported doing so. FSW were also less likely to have Internet access (31 percent, n=87), including access to social media sites, as compared with the other audiences. MSM reported the most Internet use (92.4 percent, n=414). Of those that used the Internet, all populations visited social media sites for both entertainment and social purposes.

Most respondents used social media sites to look for entertainment and to stay up to date with current affairs. Among MSM and MSW, viewing pornography was also frequently mentioned. Health information was also reportedly viewed by all populations but was only frequently reported by FSW. Almost all respondents who accessed social media sites reported they were willing to share information if they thought: it would interest and help others, it was new, or it was entertaining. Among MSM and MSW, dating, chatting, and pornography sites were popular. Most MSM and MSW visited group pages focused on MSM-related issues. Approximately half of MSM respondents visited group pages (52.0 percent, n=212), lifestyle/social blogs (46.6 percent, n=190), or chat rooms (42.4 percent, n=173). A high percentage of MSW visited group pages (69.6 percent, n=32), lifestyle/social blogs (73.9 percent, n=34), and chat rooms (52.2 percent, n=24).

Across many variables, respondents generally communicated with friends and family using mobile phones and the Internet. While on social media sites, all populations were more likely to communicate with acquaintances. In addition FSW and MSW frequently looked for casual sexual partners online. It was found that most respondents shared and were willing to share information on social media sites within their social network.

Health-seeking information habits online varied among the three populations. Most MSM infrequently or never looked online (72.3 percent, n=295) for health information. While MSW and FSW reported looking at health information online more frequently, only a few reported looking more than two or three times a week. Among all populations there was high level of interest in receiving group-specific health and well-being information. All populations preferred to receive this communication via private channels—email, in person, text, and print. Social media can be an effective way to extend or reinforce interpersonal SBCC activities and to reach harder to reach audiences. Social media sites and mobile phone-based platforms have the potential for enabling communication programs to support current interventions and reach marginalized populations, such as sex workers and MSM in Jamaica at scale.

Findings from this study indicated a mix in group preferences related to the use of these media to communicate health/well-being issues. Interpersonal communication was named by almost all FSW and most MSW and MSM as their preferred way to engage around these topics. This report provides several recommendations that are listed below and discussed in more detail in the body of the report:

- Ensure interventions for MARPs take into account their target audience's level of technology access and preferences for using these technologies.
- Take into consideration secondary audiences (i.e., sex partners, friends, family) for dissemination of messages (to or from) and promoted actions. Involve individuals trusted by MARP audiences to communicate MARP-relevant health information and tap into individuals with larger social networks closer to MARPs to further engage and reach these communities regarding sexual health.
- Integrate the use of social media into current programming with MARPs via opt-in program options. Consider the appropriateness of using social media as a communication channel when developing communication and new program strategies.
- Further explore the intended audiences' motivation for accessing social media beyond frequency and use. Understanding why intended audiences access what they do will ensure tailored and appropriate interventions.
- Directly involve segmented MARPs in social media intervention development to assure that materials/interventions are appealing, deemed valuable to share, and that they utilize the most popular social media sites per type of MARP.
- Recognize the limitations of selecting a social media channel. Consider using multiple approaches, social and mobile phone-based media, to reach the intended audience through multiple channels and more than once.
- Ensure that communication approaches using social and mobile phone-based media are multidirectional and do not rely too heavily on one-way communication.
- Do not use social media/mobile technology as a sole channel for communicating health information to MARPs. Employ a variety of mutually reinforcing communication channels for interventions including interpersonal communication.
- Always ensure the privacy and confidentiality of your audience and take precautions to ensure that their personal information is not compromised.

Background

FHI 360's Communication for Change (C-Change) project in Jamaica provides technical assistance in social and behavior change communication (SBCC) to improve the quality and scale of Jamaica's current response to the HIV and AIDS epidemic. The project works toward the overall goal of a national-led, sustainable, integrated, and coordinated HIV-prevention effort that enables national programs to plan, implement, and evaluate evidence-based, comprehensive programs for most-at-risk populations (MARPs), including men who have sex with men (MSM) and sex workers. C-Change works closely with civil society and Ministry of Health (MOH) implementers at community, regional, and national levels; policymakers, as influencers of the programming environment; and MARPs, as end-users of the programs that address them.

Through this strategic approach, C-Change aims to achieve: increased coordination between the MOH and civil society actors; increased scale and reach of programs through technical assistance; increased quality of implementation and documentation; increased sustainability of programs; and accelerated momentum of social mobilization and advocacy. In keeping with its mandate to inform program planning and implementation for MARPs, guided by evidence-based data, C-Change conducted a study in 2011 to explore the frequency and type of social media used in Jamaica by MARPs. Social media is defined as the use of web-based and mobile technologies to turn communication into interactive dialog. This assessment focused on two populations, MSM and sex workers.

Introduction

The majority of Jamaicans have access to the Internet. The *2010 Internet Usage Report* estimates its usage at 55 percent, having exponentially grown from only 2.3 percent of Jamaicans in little over a decade (Internet World Stats 2012). According to the same report, almost 630,000 people (approximately 23%) are registered with Facebook in Jamaica, the third highest usage rate in the Caribbean. As of December 31, 2010, the Office of Utility Regulations in Jamaica recorded a 117 percent¹ penetration of cell phones (2011).

The use of social media tools in health and development programs has become an effective way to expand reach, foster engagement, and increase access to credible, science-based health messages (Centers for Disease Control and Prevention 2011). In addition, research shows that delivering health information online impacts knowledge and health outcomes. A randomized control trial in rural United States tested the efficacy and acceptability of using the Internet to deliver risk-reduction messages to MSM. The trial determined that those who received risk-reduction messages appeared to have increased knowledge of HIV and self-efficacy compared with those who were not exposed to the Internet intervention (Bowen, Keith, and Williams 2007). In Kenya, where text messages were used as reminders for antiretroviral use, persons receiving the messages had greater levels of adherence and better viral suppression readings at the end of 12 months (Chi and Stringer 2010) compared with those who had not received the texts, thus indicating a benefit to social media activity in this context.

The literature indicates that knowing the prevalence of social media use by target populations is important for effective HIV and health messaging. This may be most relevant for programmers attempting to reach marginalized and vulnerable populations, like sex workers and MSM. Under sections 76 and 68, respectively, of the Jamaican Offences Against the Persons Act, both the act of buggery and the act of selling one's person for exchange of goods are considered illegal in Jamaica (Ministry of Justice, Jamaica n.d.). This makes it difficult to implement far-reaching HIV and other health programs and interventions for and with these populations. As a result, innovative and creative means need to be employed to disseminate HIV and health information to these populations and to engage them in dialog and strategies around and for their own protection.

Jamaica has both a generalized and a concentrated HIV epidemic. It is estimated that approximately 1.7 percent of the adult population is living with HIV and AIDS and 50 percent do not know their status. St. Ann, one of the major tourism-dependent parishes, has the third highest cumulative HIV-prevalence rate after the capital Kingston and St. James, the home to Montego Bay and also a parish heavily dependent on tourism (National HIV/STI Programme [NHP] 2010). The MSM population, estimated at approximately 28,000, and the sex worker population at approximately 10,000 (Harvey 2010) have an HIV prevalence of 32 percent and 5 percent, respectively (NHP 2010).

Few studies have been conducted in the Caribbean regarding the use of social media, whether web-based or mobile based, to improve health programming. A recall study on HIV prevention

¹ The figure is greater than 100 percent because persons own more than one cell phone. This figure is of the entire population.

advertisements conducted by NHP in 2009 among adolescent males and females aged 14–18 years indicated that the single most used media was the cell phone at 64.8 percent. In addition 38 percent of the respondents indicated that text messaging played an important role in their lives. The study recommended the use of the Internet and social media sites such as YouTube to disseminate messages related to HIV (Chambers 2009).

Focus groups conducted in 2010 for an NHP MSM study (Anderson 2010) recommended the use of the Internet, social media sites, and blogs as avenues for prevention interventions, making an assessment of this nature quite timely. The same study also reported the use of the Internet for socializing and accessing information regarding social activities, such as parties geared toward MSM. Currently, NHP has social media programs geared toward sex workers; in one outreach program sex workers receive messages via cell phones inviting and reminding them of empowerment workshops conducted by health care providers.

Furthermore, anecdotal data from the MSM community in Jamaica tells of their high use of social media sites, blogs, and chat rooms to meet partners, friends, and to build their networks. Knowledge of the numbers who use both the Internet and text messaging for social interaction and their preferences would strengthen any prevention intervention that uses these media. To better understand sex workers' and MSM's use and preferences for these channels, C-Change conducted an assessment around this topic in 2011.

Methods

The purpose of this assessment was to explore the use of technology for information-seeking, advocacy, mobilization, and communication among sex workers and MSM in Jamaica, specifically via social media sites. An additional purpose of this assessment was to inform the development of communication materials/media aimed at reaching these two distinct audiences as part of broader HIV–prevention interventions.

Study Locations

The study was conducted in three urban cities in Jamaica: Kingston & St. Andrews, (KSA), St. James (including Montego Bay), and St. Ann’s (including Ochos Rios) and one rural location, Negril. The study locations were selected because they had among the highest HIV–burden rates and the largest segment of the sex worker and MSM population.

Recruitment of Data Collectors

A total of 15 data collectors were recruited from all study locations to conduct the social media survey over a three-week period (see Table 1). Data collectors were recruited from within the sex worker and MSM population to facilitate data collection from the intended population and reach those not normally reached by these types of studies. Data collectors were chosen based on a number of criteria, including residence in study locations, connection through social networks with the intended study groups, and recommendations from organizations/agencies working with the intended groups. Many had experience as peer educators or had participated in empowerment workshops for each of the intended groups.

Table 1: Number of Data Collectors by Parish and Target Population

Parish	Sex Worker	MSM
Kingston & St. Andrews	2	3
St. James (Montego Bay and Negril)	2	4
St. Ann (Ochos Rios)	2	2
TOTAL	6	9

Sampling

A snowball sampling approach was used such that data collectors were asked to interview persons within their networks, whether social or professional. To maximize the inclusiveness of the study sample, data collectors represented various social and professional networks and socio-economic classes. In addition sex worker data collectors were both club-based and street-based. Over a six-week period, each data collector was asked to administer up to 80 surveys using a Nokia C3 smartphone with a goal of 800 surveys in total. The study asked data collectors to complete a higher number of surveys than needed due to anticipated difficulties in identifying respondents. This was particularly important as Table 2 shows the planned and achieved sample sizes per target population and geographic area.

Table 2. Data Collection Plan

	MSM	Sex Workers		Total
		FSW	MSW	
Intended	400		400	800
Achieved	448	273	66	787 ²

All survey respondents were screened to ensure they were at least 18 years of age, lived in one of the three study sites, and either had sex with a man in the past year for the MSM survey or had received payment for sex within the past month for the sex worker’s survey.

Data Transcription and Analysis

Data collectors were trained to use a cell phone–based survey. Once the survey was completed, it was submitted to an online database using Gatherdata software. The database collected surveys from all data collectors at the point of submission and were downloaded into Excel. Eleven surveys were discarded because they did not meet the criteria (i.e., respondents were neither sex workers nor MSM). Once the database in Excel was cleaned, the analysis was completed using SPSS software. The data were analyzed by respondent type: MSM, female sex worker (FSW), and male sex worker (MSW). For variables that had multiple response possibilities (e.g., questions #15, 17, 26, 27, 30, etc.), a database for multiple responses was developed to allow tallies for the particular answers (how many responded a, b, c, etc.). For questions that had open-ended responses (e.g., questions #23, 24, 25), responses were cleaned for spelling errors, grouped into appropriate thematic categories, and tallied. Unfamiliar responses of websites, chat rooms, and group pages were verified by searching the Internet.

Ethical Considerations

Ethical approval was received from the Institutional Review Board (IRB) of the Ministry of Health in Jamaica, as well as an IRB, Health Media Lab (NIH IRB # 00001211, Federal Wide Assurance # 00001102), in the United States. To protect the respondents, voluntary consent was obtained verbally by the data collector and a witness. Participants were asked to initial the consent form, names were not recorded. Respondents were not remunerated for their participation.

Study Limitations

The sample size was chosen to meet the needs of a formative assessment. The purpose of the data was to provide program designers with general estimates of levels of Internet use, site use, and basic preferences of sex worker and MSM populations. The sample size allowed for basic assumptions to be met, however, it did not allow for generalization to the larger population beyond those basic trends needed to inform program design.

While data were collected as expected in most study locations, data gathering was extremely low among sex workers in Kingston. One major factor was that other studies were being conducted at the time of the assessment in same geographical region with the same survey population. Unlike the social media study, these other studies provided remuneration to participants. To compensate for this situation, data collectors in Kingston were given an extra week (seven weeks) to administer questionnaires.

² Seven transgender respondents completed surveys. Due to low numbers, they are not included in the analysis.

The design of the questionnaire and procedures put into place to protect the identity of the respondents influenced subsequent analysis. Since the survey was geared toward the use of social media, all respondents who accessed the Internet were asked questions about their use of social media, even if they did not choose it as a reason for using the Internet in response to question #15. For question #14—*Where do you use the Internet the most often?*—several respondents reported they most frequently used Internet on the phone. However, answers to question #43—*Do you use Internet on your cell phone?*—did not correspond to the number of answers to question #1. All discrepancies are noted in the findings section of the report.

Findings

Socio-Demographic Characteristics

A total of 794 respondents participated in the study. Data were divided into three subpopulations: MSM, non-sex workers (n=448), FSW (n=273), and MSW (n=66; 61 were MSM sex workers and five were non-MSM sex workers). Transgender participant (n=7) findings, as they were a small subset of the sample size, were not included in the analysis.

As shown in Table 3, most of the respondents (93.8 percent, n=738) lived in the southeast, northeast, and western regions. Only a small number lived the southern region (6.2 percent, n=49). Among the four locations, most MSM lived in the southeast region including Kingston and St. Andrews (41.7 percent, n=187). Unlike the MSM, FSW residences were divided among all regions with the southern region having the lowest (15 percent, n=41). Most of the MSW respondents to the survey did not live in the southeast region, but in the northeast and western regions (81.8 percent, n=54).

Most respondents in all categories were under 30 years of age (76.5 percent, n=602). Most MSM and MSW were under 24 years of age (51.3 percent, n=230; 50 percent, n=33, respectively). Of the FSW, 33 percent (n=90) were under 24 years of age and 36.3 percent (n=99) were between 25–30 years of age.

Education levels among the populations varied, as MSM tended to have completed higher grade levels than the other populations. Forty percent (n=179) of MSM had completed grades 10–12 and 27.5 percent (n=123) had completed some tertiary. Among FSW, 37 percent (n=101) had completed grades 7–9 and 46.9 percent (n=128) had completed grades 10–12. MSW education patterns were similar to that of FSW.

Approximately 60 percent (n=479) of all respondents were single and never married.

Table 3. Socio-Demographic Characteristics of Participants

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Totals (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Location Respondent Resides								
Southeast region including Kingston & St. Andrew	41.7	(187)	29.3	(80)	15.2	(10)	35.2	(277)
Northeast region including St. Ann	29.9	(134)	23.8	(65)	47.0	(31)	29.2	(230)
Western region including St. James	27.0	(121)	31.9	(87)	34.8	(23)	29.4	(231)
Southern region	1.3	(6)	15.0	(41)	3.0	(2)	6.2	(49)
Total	99.9	(448)	100	(273)	100	(66)	100	(787)
Age of Respondent (Years)								
18–24	51.3	(230)	33.0	(90)	50.0	(33)	44.9	(353)
25–30	28.6	(128)	36.3	(99)	33.3	(22)	31.6	(249)
31–36	9.8	(44)	16.1	(44)	10.6	(7)	12.1	(95)
36–41	4.5	(20)	9.2	(25)	6.1	(4)	6.1	(49)
41 and over	5.8	(26)	5.5	(15)	0.0	(0)	5.2	(41)
Total	100	448	100.1	273	100	66	99.9	787

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Totals (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Highest Grade Completed								
Never went to school	0.2	(1)	4.0	(11)	1.5	(1)	1.7	(13)
Grade 1–3	0.0	(0)	1.5	(4)	0.0	(0)	0.5	(4)
Grade 4–6	0.0	(0)	8.1	(22)	1.5	(1)	2.9	(23)
Grade 7–9	4.5	(20)	37.0	(101)	30.3	(20)	17.9	(141)
Grade 10–12	40.0	(179)	46.9	(128)	54.5	(36)	43.6	(343)
Some tertiary	27.5	(123)	1.5	(4)	3.0	(2)	16.4	(129)
Vocational/technical school	8.5	(38)	1.1	(3)	4.5	(3)	5.6	(44)
University	15.2	(68)	0.0	(0)	4.5	(3)	9.0	(71)
Master's/doctoral degree	4.2	(19)	0.0	(0)	0.0	(0)	2.4	(19)
Total	100.1	448	100.1	273	99.8	66	100	787
Marital Status								
Single, never married	64.1	(287)	57.1	(156)	54.5	(36)	60.9	(479)
Long term relationship not living together	14.7	(66)	12.8	(35)	9.1	(6)	13.6	(107)
Living together	13.8	(62)	11.0	(30)	10.6	(7)	12.6	(99)
Separated/divorced	2.9	(13)	12.1	(33)	16.7	(11)	7.2	(57)
Married/common-law marriage	4.4	(20)	7.0	(19)	9.1	(6)	5.7	(45)
Total	99.9	448	100	273	100	66	100	787

As shown in Table 4, among MSM respondents, 52 percent (n=233) worked in office-type settings (occupations of sales/administration/clerical, small business owner, large business owner, professional/technical). Only 14.5 percent (n=65) of MSM respondents were unemployed. Ninety-six percent (n=262) of FSW reported their occupation as sex worker or exotic dancer. Very few FSW were unemployed or were employed elsewhere (1.5 percent, n=4). Among the MSW, 43.9 percent (n=29) reported their occupation as sex worker or exotic dancer.

MSM had the highest reported income of the three target populations [most commonly between J\$50,001–150,000 (37.5 percent, n=168) and J\$20,000–50,000 (24.3 percent, n=109)]. MSW were the next highest [most commonly J\$20,000–50,000 (42.4 percent, n=28)], and FSW generally reported the lowest income [less than J\$20,000 (60.4 percent, n=165)].

Table 4: Occupation and Income of Respondents

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Total (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Occupation								
Sex work	0.2	(1)	57.5	(157)	42.4	(28)	23.6	(186)
Sales/administration/clerical	23.9	(107)	0.4	(1)	9.1	(6)	14.5	(114)
Professional/technical	23.0	(103)	0.7	(2)	7.6	(5)	14.0	(110)
Exotic dancer	0.0	(0)	38.5	(105)	1.5	(1)	13.5	(106)
Student	17.4	(78)	0.4	(1)	10.6	(7)	10.9	(86)
No job	14.5	(65)	0.4	(1)	15.2	(10)	9.7	(76)
Laborer/service worker/craftsman	11.4	(51)	0.7	(2)	10.6	(7)	7.6	(60)
Small business owner	4.0	(18)	0.4	(1)	1.5	(1)	2.5	(20)
Large business owner	1.1	(5)	0.0	(0)	0.0	(0)	0.6	(5)
Retired	0.4	(2)	0.0	(0)	0.0	(0)	0.3	(2)

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Total (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Other	4.0	(18)	1.1	(3)	1.5	(1)	2.8	(22)
Total	99.9³	448	100.1	273	100	66	100.4	787
Reported Income (in Jamaican dollars)								
Under 20,000	7.1	(32)	60.4	(165)	25.8	(17)	27.2	(214)
20,000–50,000	24.3	(109)	32.6	(89)	42.4	(28)	28.7	(226)
50,001–150,000	37.5	(168)	5.1	(14)	22.7	(15)	25.0	(197)
151,000–300,000	14.7	(66)	0.0	(0)	1.5	(1)	8.3	(67)
300,000+	5.1	(23)	0.0	(0)	0.0	(0)	2.9	(23)
Don't know/refused	11.2	(50)	1.8	(5)	7.6	(5)	7.6	(60)
Total	99.9	448	99.9	273	100	66	99.7	787

Cell Phone Use

Almost all respondents reported having a working cell phone (92 percent, n=724). Recipients of cell phone communication were most commonly nonpaying casual sex partners (92 percent, n=648), family (69.2 percent, n=487), and friends (55.7 percent, n=392) (see Table 5). Along with voice communication, participants also used the cell phone for text messaging (89.2 percent, n=708) and for sending pictures/videos/sound clips (53.3 percent, n=423), but less frequently used the internet on their cell phones (11.5 percent, n=91).

Table 5: Who Respondents Communicated with Via Cell Phones⁴

	MSM (n=436)		FSW (n=210)		MSW (n=58)		Totals (n=704)	
	%	(n)	%	(n)	%	(n)	%	(n)
Non-paying casual sex partners	97.7	(426)	81.9	(172)	86.2	(50)	92.0	(648)
Family	62.8	(274)	81.4	(171)	72.4	(42)	69.2	(487)
Friends	64.7	(282)	39.5	(83)	46.6	(27)	55.7	(392)
Boyfriend	33.5	(146)	66.2	(139)	20.7	(12)	42.2	(297)
Casual sex partners	20.9	(91)	46.2	(97)	44.8	(26)	30.4	(214)
Girlfriend	2.8	(12)	16.2	(34)	29.3	(17)	8.9	(63)
Acquaintances	3.2	(14)	7.1	(15)	3.4	(2)	4.4	(31)
Someone else	0.0	(0)	0.0	(0)	0.0	(0)	0.0	(0)

Differences between Populations (MSM, FSW, MSW)

Of the three populations, MSM were most likely to report having a cell phone (98.4 percent, n=441), followed by MSW (89.4 percent, n=59), and FSW (82 percent, n=224). Of those who did have a cell phone, MSW and FSW were more likely to use the cell phone for text messaging than were MSM [98.3 percent (n=58); 93.8 percent (n=210); 77.8 percent (n=343), respectively]. Regarding the sending or receiving of pictures, videos or sound clips, MSM were much more likely to use this function than were FSW or MSW [98.6 percent (n=435); 19.2% (n=43); 57.6 percent (n=34), respectively], which was largely attributed to the fact that many FSW and MSM did not have this function on their cell phones. MSW were more likely to use the internet on

³ Some totals are slightly higher or lower than 100% due to rounding.

⁴ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

their cell phones than were MSM or FSW [50.8 percent (n=30); 18 percent (n=80); 10.7 percent (n=21), respectively].⁵

Internet Use

The majority of respondents reported using the Internet (69 percent, n=548). It was reported to be used most commonly at home (40 percent, n=219), at an internet café (20.8 percent, n=114), on their phone (16.6 percent, n=91) and at work (15.5 percent, n=85) (Table 6). Reported reasons for using the internet were most frequently for social media sites (83.9 percent, n=460), for email (81 percent, n=444), for entertainment sites (55.5 percent, n=304) and for pornography sites (45.3 percent, n=248). More specific results regarding use of social media sites and accessing health information on-line are discussed in separate findings sections below.

Table 6: Respondents' Internet Use

	MSM (n=414)		FSW (n=87)		MSW (n=47)		Total (n=548)	
	%	(n)	%	(n)	%	(n)	%	(n)
Where Internet is Used Most Frequently								
Home	45.7	(189)	13.8	(12)	38.3	(18)	40.0	(219)
Internet café	10.6	(44)	64.4	(56)	29.8	(14)	20.8	(114)
On phone	19.3	(80)	8.0	(7)	8.5	(4)	16.6	(91)
Work	17.4	(72)	9.2	(8)	10.6	(5)	15.5	(85)
Friend/relative's home	2.9	(12)	4.6	(4)	10.6	(5)	3.8	(21)
School	3.4	(14)	0.0	(0)	0.0	(0)	2.6	(14)
Someplace else	0.7	(3)	0.0	(0)	2.1	(1)	0.7	(4)
Total	100	414	100	87	99.9	47	100	548
Why Respondents Use the Internet⁶								
Email	81.2	(336)	86.2	(75)	70.2	(33)	81.0	(444)
Social media sites	86.0	(356)	77.0	(67)	78.7	(37)	83.9	(460)
Entertainment sites	58.5	(242)	46.0	(40)	46.8	(22)	55.5	(304)
Pornography sites	53.1	(220)	3.4	(3)	53.2	(25)	45.3	(248)
Find casual sex partners	24.6	(102)	67.8	(59)	44.7	(21)	33.2	(182)
Find long-term sex partners	12.1	(50)	3.4	(3)	8.5	(4)	10.4	(57)
Work purposes	49.3	(204)	10.3	(9)	31.9	(15)	41.6	(228)
Educational or news content	35.7	(148)	62.1	(54)	21.3	(10)	38.7	(212)
Information on health	8.9	(37)	57.5	(50)	12.8	(6)	17.0	(93)
Play games	11.8	(49)	17.2	(15)	27.7	(13)	14.1	(77)
Shop online	15.7	(65)	4.6	(4)	8.5	(4)	13.3	(73)
Blog	5.3	(22)	9.2	(8)	4.3	(2)	5.8	(32)
Something else	0.7	(3)	1.1	(1)	2.1	(1)	0.7	(4)

Differences between Populations (MSM, FSW and MSW)

MSM and MSW were more likely to use the internet than were FSW (92.4 percent, n=414; 71.2 percent n=47; 31.9 percent, n=87, respectively). Regarding where the internet was used, MSM and MSW were more likely to use the internet at home (45.7 percent, n=189; 38.3 percent, n=18,

⁵ Analysis of internet use on the cell phone was based on Question #14: *Where do you use the internet the most?* When asked again in Question #43: *Do you use the internet on your cell phone?* No MSM answered this question due either to a survey or data collection error.

⁶ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

respectively), while FSW tended to use it at an internet café which was also relatively popular among MSW (64.4 percent, n=56; 29.8 percent, n=14, respectively). MSM and MSW's reasons for using the internet were similar to what was reported for the total sample (i.e., social media, email, entertainment sites and pornography). However, FSW reported a wider variety of reasons for using the internet. Along with using it for email and social media sites, as the larger sample, FSW also commonly used it to find casual sex partners, for educational or news content, as well as to obtain health information [67.8 percent, n=59; 62.1 percent, n=54; 57.5 percent, n=50, respectively].

Social Media Site Usage

Of those who reported using the Internet, Facebook and YouTube were the most frequently visited social media sites (94.3 percent, n=517; 78.5 percent, n=430) (see Table 7). Other popular sites were Twitter (46 percent, n=252) and Tagged (41 percent, n=225). Respondents cited several reasons for visiting social media sites with the most popular being to make new friends (80.5 percent, n=438), to stay up to date with friends and family (73.5 percent, n=400), to share experiences and opinions (67.1 percent, n=365), and for entertainment (60.1 percent, n=327) (see Table 8). Most commonly respondents spent 1-3 hours a day on social media sites (34.6%, n=187) and posted or updated items on the sites several times a day (40.1 percent, n=217).

Table 7: Social Media Sites Visited⁷

	MSM (n=414)		FSW (n=87)		MSW (n=47)		Total (n=548)	
	%	(n)	%	(n)	%	(n)	%	(n)
Facebook	94.7	(392)	94.3	(82)	91.5	(43)	94.3	(517)
YouTube	79.5	(329)	74.7	(65)	76.6	(36)	78.5	(430)
Twitter	43.7	(181)	66.7	(58)	27.7	(13)	46.0	(252)
Tagged ⁸	35.7	(148)	67.8	(59)	38.3	(18)	41.1	(225)
Adam for Adam ⁹	51.7	(214)	4.6	(4)	2.6	(2)	40.1	(220)
BGCLive.com ¹⁰	23.4	(97)	6.9	(6)	25.5	(12)	21.0	(115)
LinkedIn	10.4	(43)	4.6	(4)	4.3	(2)	8.9	(49)
Pink Report ¹¹	9.9	(41)	2.3	(2)	4.3	(2)	8.2	(45)
SmutVibes ¹²	8.5	(35)	3.4	(3)	2.1	(1)	7.1	(39)
Blogster	7.0	(29)	9.2	(8)	2.1	(1)	6.9	(38)
None	1.4	(6)	1.1	(1)	2.1	(1)	1.5	(8)

⁷ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

⁸ Tagged is a social networking site at <http://www.tagged.com/> that is geared toward meeting people, games, and sharing interests.

⁹ Adam for Adam is a worldwide free online dating, chatting, and pornography site at <http://www.adam4adam.com/> for MSM.

¹⁰ BGCLive a social network site at <http://bgclive.com/> for Black and Latino gay, bisexuals, and transgenders.

¹¹ The Pink Report is a Jamaican blog at <http://pinkreportjamaica.wordpress.com> focusing on current issues for the LGBT community.

¹² SmutVibes is an adult online dating and social networking site available at <http://www.smutvibes.com/>.

Table 8: Use of Social Media Sites by Respondents

	MSM (n=408)		FSW (n=86)		MSW (n=46)		Total (n=540)	
	%	(n)	%	(n)	%	(n)	%	(n)
Why on Social Media Sites¹³								
Make new friends	76.7	(313)	91.9	(79)	93.5	(43)	80.6	(435)
Stay-up to date with family and friends	74.0	(302)	74.4	(64)	67.4	(31)	73.5	(397)
Share experiences and opinions	64.7	(264)	82.6	(71)	60.9	(28)	67.2	(363)
View entertainment	63.5	(259)	43.0	(37)	65.2	(30)	60.4	(326)
Find casual sex partners	23.3	(95)	73.3	(63)	41.3	(19)	32.8	(177)
Find out about parties	42.6	(174)	12.8	(11)	39.1	(18)	37.6	(203)
Conduct business	19.4	(79)	57.0	(49)	19.6	(9)	25.4	(137)
Find long-term sex partners	18.9	(77)	5.8	(5)	15.2	(7)	16.5	(89)
Play games	15.7	(64)	15.1	(13)	21.7	(10)	16.1	(87)
Other	0.5	(2)	0.0	(0)	0.0	(0)	0.4	(2)
What Type of Information do you Look for on Social Media Sites¹⁴								
Entertainment information	75.0	(306)	58.1	(50)	71.7	(33)	72.0	(389)
Current affairs	74.8	(305)	65.1	(56)	56.5	(26)	71.7	(387)
Pornography	40.7	(166)	5.8	(5)	41.3	(19)	35.2	(190)
Health information	25.5	(104)	74.4	(64)	34.8	(16)	34.1	(184)
Job information	31.6	(129)	14.0	(12)	34.8	(16)	29.1	(157)
Travel information	13.7	(56)	8.1	(7)	13.0	(6)	12.8	(69)
Other	2.2	(9)	1.2	(1)	2.2	(1)	2.0	(11)
Why Share Information on Social Media Site¹⁵								
I thought it would interest/help others	68.6	(280)	72.1	(62)	78.3	(36)	70.0	(378)
It was new	56.1	(229)	51.2	(44)	56.5	(26)	55.4	(299)
It was entertaining	58.3	(238)	18.6	(16)	43.5	(20)	50.7	(274)
I received the info from someone I trust	38.5	(157)	15.1	(13)	26.1	(12)	33.7	(182)
To promote myself	18.6	(76)	50.0	(43)	23.9	(11)	24.1	(130)
I would not share info	6.6	(27)	2.3	(2)	2.2	(1)	5.6	(30)
Other reason	1.4	(6)	2.3	(2)	0.0	(0)	1.5	(8)

Differences between Populations (MSM, FSW, MSW)

Of the social media sites used, more MSM used Adam for Adam and LinkedIn (51.7 percent, n=214; 10.4 percent, n=43, respectively) than other populations. Among FSW, many more used Tagged and Twitter (67.8 percent, n=59; 66.7 percent, n=58, respectively). Social media use among MSW was similar to that of MSM except for the fact that Twitter and LinkedIn were reported at a lower rate (27.7 percent, n=13; 4.3 percent, n=2).

¹³ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

¹⁴ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable

¹⁵ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

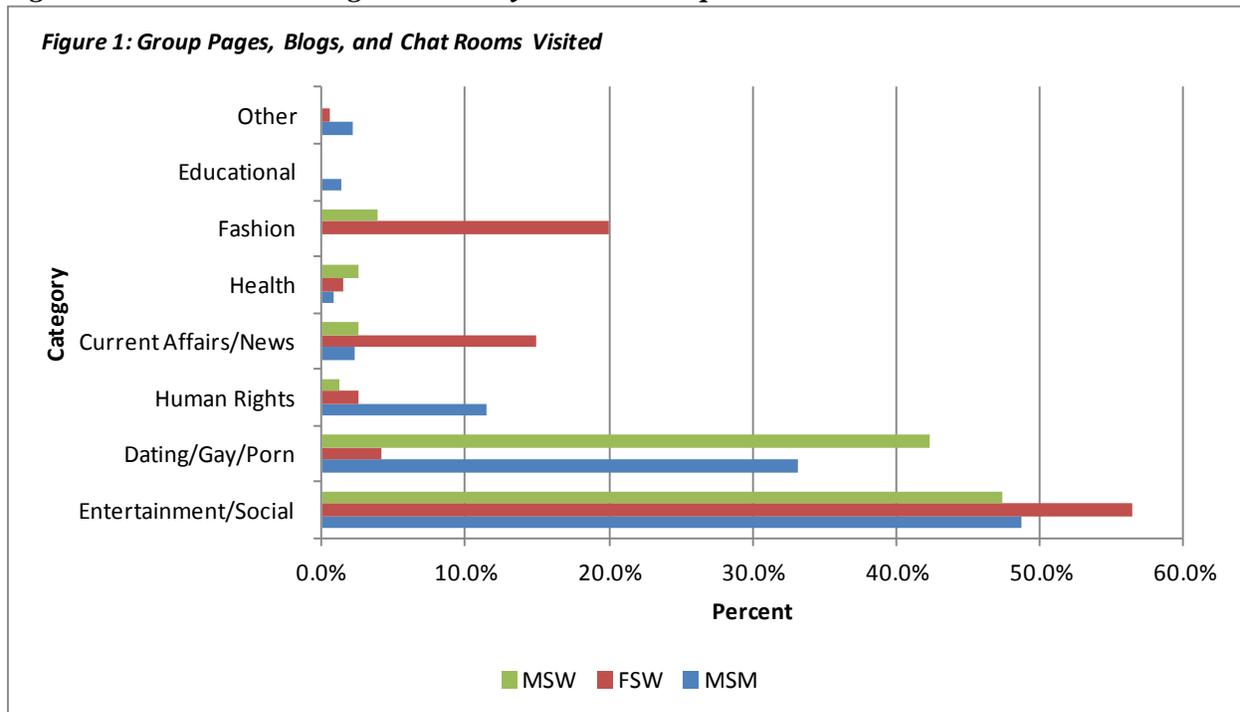
Regarding reasons for using social media sites, FSW and MSW tended to use these on-line resources for somewhat different reasons than MSM. While MSM used social media more like the larger sample (i.e., make new friends, stay up to date with friends and family, share experiences and opinions, entertainment, pornography), FSW used it for many of the same reasons as the larger sample but also to find casual sex partners (73.3 percent, n=63) and to view health information, (74.4 percent, n=64) and current affairs (65.1 percent, n=56). MSW used social media for similar reasons as the larger sample but also, as FSW, to view health information (38.8 percent, n=16) and current affairs (56.6 percent, n=26).

Concerning time on social media sites, the majority of all populations (MSM, FSW, MSW) reported that they spent between 30 minutes and five hours at these sites (68.6 percent, n=280; 86.6 percent, n=71; 65.2 percent, n=30, respectively). Regarding regularity of posting or updating items, MSM and MSW most commonly reported they did this several times a day (48 percent, n=196; 37 percent, n=17, respectively), while FSW did this most often on a monthly basis (58.1 percent, n=50).

Visiting parts of social media sites varied by population (see Figure 1). For MSM, reported visits to group pages were most popular followed by lifestyle/social blogs and chat rooms (52 percent, n=212; 46.6 percent, n=190; 42.4 percent, n=173, respectively). The group pages and lifestyle/social blogs listed were categorized (n=595) and most MSM (48.7 percent, n=290) visited entertainment/social pages such as Yardieboyz and Facebook and sites with online dating, chat rooms, and pornography geared toward MSM (33.1 percent, n=197). In addition, human rights pages focusing on the lesbian, gay, bisexual, and transgender (LGBT) community in Jamaica, and current affairs (11.4 percent, n=68) including the Pink Book were popular (5.2 percent, n=31). Only a few MSM reported visiting health sites (n=5).

Among FSW and MSW, visiting of lifestyle/social blogs was most popular followed by group pages and chat rooms (FSW - 91.2 percent, n=79; 87.2 percent, n=75; 26.7 percent, n=23, respectively; MSW - 73.9 percent, n=34; 69.6 percent, n=32; 52.2 percent, n=24, respectively). The group pages and lifestyle/social blogs listed by FSW (n=195) were entertainment pages (56.4 percent, n=110), fashion (20 percent, n=39), and news pages (14.9 percent, n=29). Unlike the MSM group, the FSW did not list specific pages, but categories. The group pages and lifestyle/social blogs reported by MSW were similar to those listed by MSM.

Figure 1: Social Media Pages Visited by MARP Group



Health Information Use and Preferences

Most respondent reported that they did not generally use the internet to access health information (62.7 percent, n=339) (see Table 9). The most trusted source of health among respondents were health professionals (90.2 percent, n=710) (see Table 10). Other trusted sources included family (54 percent, n=425), friends (50.2 percent, n=395), a community organization (32.7 percent, n=257), the media, (29.4 percent, n=231) and a social media special interest group (28.3 percent, n=223). The vast majority of respondents were interested in receiving health information (89.5 percent, n=704) (see Table 11). Some of the more preferred methods of receiving such information were in person (65.8 percent, n=518), via text messaging (61.5 percent, n=484), email (49.1 percent, n=387) and through social media special interesting group (41.4 percent, n=326).

Moreover, of those respondents who used social media, the majority reported they were willing to share health information on social media sites (69.5 percent, n=357) most commonly with family (54 percent, n=428) and friends (50.4 percent, n=400). The most common motivations to want to share health information with others included: because they thought it would be of interest or could help them (90.6 percent, n=328); because it was new information (52.5 percent, n=194); and because information shared was from someone they trusted (46.7 percent, n=169) (Table 12).

Table 9: Frequency of Viewing Health Information Online¹⁶

	MSM (n=408)		FSW (n=86)		MSW (n=46)		Total (n=540)	
	%	(n)	%	(n)	%	(n)	%	(n)
Daily	9.1	(37)	3.5	(3)	8.7	(4)	8.1	(44)
2–3 times a week	3.7	(15)	4.7	(4)	0.0	(0)	3.5	(19)
Weekly	8.8	(36)	14.0	(12)	10.9	(5)	9.8	(53)
Monthly	6.1	(25)	58.1	(50)	21.7	(10)	15.7	(85)
Infrequently	51.2	(209)	16.3	(14)	37.0	(17)	44.4	(240)
Never	21.0	(86)	3.5	(3)	10.7	(10)	18.3	(99)
Total	99.9	408	100.1	86	89	46	99.8	540

Table 10: Sources of Trusted Health Information and Channel Preferences¹⁷

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Total (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Health professionals	90.2	(404)	92.3	(252)	81.8	(54)	90.2	(710)
Family	44.9	(201)	67.4	(184)	60.6	(40)	54.0	(425)
Friends	49.8	(223)	49.8	(136)	54.5	(36)	50.2	(395)
Community organization	37.1	(166)	27.1	(74)	25.8	(17)	32.7	(257)
Media	30.1	(135)	29.7	(81)	22.7	(15)	29.4	(231)
Social media special interest group	25.2	(113)	34.1	(93)	25.8	(17)	28.3	(223)
Boyfriend	18.5	(83)	30.0	(82)	9.1	(6)	21.7	(171)
Acquaintances	16.5	(74)	21.6	(59)	21.2	(14)	18.7	(147)
Casual sex partner	5.6	(25)	18.3	(50)	21.2	(14)	11.3	(89)
Private businesses	12.9	(58)	2.2	(6)	12.1	(8)	9.1	(72)
Girlfriend	2.7	(12)	7.0	(19)	18.2	(12)	5.5	(43)
Strangers	2.5	(11)	5.5	(15)	3.0	(2)	3.6	(28)

Table 11: Interest in Receiving Health Information

	MSM (n=448)		FSW (n=273)		MSW (n=66)		Total (n=787)	
	%	(n)	%	(n)	%	(n)	%	(n)
Interested in Getting Health Info for MSM¹⁸								
No	6.3	(28)	0.4	(1)	1.5	(1)	3.8	30
Yes	83.5	(374)	98.5	(269)	92.4	(61)	89.5	704
Not sure	10.3	(46)	1.1	(3)	6.1	(4)	6.7	53
Total	100.1	448	100	273	100	499	100	787
How Would You Like to Receive this Information?^{19,20}								
Email	66.0	(277)	29.0	(79)	47.0	(31)	49.1	387
In person	50.5	(212)	96.3	(262)	66.7	(44)	65.8	518

¹⁶ N is based on those who report using the Internet (Q13).¹⁷ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.¹⁸ Sex workers answered Q45, Q46; MSM answered Q47,48¹⁹ Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.²⁰ N is based on those that would like to receive information or are not sure.

Text messaging	44.8	(188)	90.4	(246)	75.4	(50)	61.5	484
Social media site	46.0	(193)	38.6	(105)	42.4	(28)	41.4	326
Print	42.9	(180)	32.4	(88)	28.8	(19)	36.5	287
Picture, video or sound clip	17.6	(74)	12.1	(32)	24.2	(16)	15.5	122
Radio	18.6	(78)	37.9	(103)	31.8	(21)	25.7	202
Other	1.9	(8)	0.0	(0)	0.0	(0)	1.0	8

Table 12: Sharing Health Information on Social Media Sites^{21,22}

	MSM (n=274)		FSW (n=43)		MSW (n=45)		Total (n=362)	
	%	(n)	%	(n)	%	(n)	%	(n)
I thought it would interest/help others	94.9	(260)	79.1	(34)	75.6	(34)	90.6	(328)
It was new	57.7	(158)	44.2	(19)	37.8	(17)	52.5	(194)
I received the info from someone I trust	51.8	(142)	34.9	(15)	26.7	(12)	46.7	(169)
It was entertaining	24.5	(67)	34.9	(15)	17.8	(8)	24.9	(90)
Other reason	1.1	(3)	2.3	(1)	2.2	(1)	1.4	(5)

Differences between Populations (MSM, FSW, MSW)

FSW were inclined to obtain health information on the internet more often than MSM or MSW (Table 9). On average, FSW obtained health information most frequently (on a monthly basis) while MSW on average sought it either monthly or infrequently and MSM sought it infrequently. While reported sources for trusted information generally reflected the larger sample for all populations, preferences varied somewhat by magnitude (Table 10). In general, MSM and FSW were more trusting of information from health professionals than were MSW; sex workers were more trusting of information from their families than were MSM; MSM were more trusting of information from CBOs than were sex workers; FSW were more trusting of information from social media special interest groups than were MSM or MSW; and FSW were more trusting of information from their boyfriend than were an MSM or a MSW.

Regarding interest in receiving health information, FSW were the most interested followed by MSW and MSM (98.5 percent, n=269; 92.4 percent, n=61; 83.5 percent, n=374) (Table 11). The populations varied regarding how they would like to receive health information relevant to the needs of sex workers and MSM respectively. Email was most popular among MSM; in person and text messaging was more popular among sex workers than among MSM; print media was more popular among MSM than sex workers; and radio was more preferred by sex workers than MSM. All populations felt some affinity toward receiving health information via a social media site.

Concerning sharing health information on social media sites, MSM were most inclined to do this (71.9%, n=274), followed by MSW (80 percent, n=36) and FSW (51.1%, n=43). Regarding with

²¹ N=those willing to share information on social media sites. For MSM, 408 used social media sites and of those 381 were willing to share information on social media sites. For FSW, 86 used social media and of those 84 were willing to share information on social media sites. For MSW, 46 used social media and of those 45 were willing to share information on social media sites.

²² Categories are not mutually exclusive and respondents were asked for multiple responses if applicable.

whom the three populations would most commonly share information, this did not differ from the larger sample (i.e., share with family and friends) nor did their frequent reasons for sharing information (i.e., thought it would be of interest or could help, it was new information and it was from someone they trusted).

Discussion, Conclusions and Recommendations

Findings from this assessment reinforce literature that speaks to a high penetration of cell phones in Jamaica (Internet World Stats 2012). Study findings also support literature regarding the use and preference of social media among MSM and sex workers (Chamber 2009; Anderson 2010). The study provides new insights for the Jamaican context regarding variation among differing MARP populations (i.e., MSM, FSW, and MSW) for use and preference of social media. Social media sites and mobile phone-based platforms have the potential for enabling communication programs to reach marginalized populations, such as sex workers and MSM in Jamaica at scale. The findings of the present study provide strategic information for how to tailor such media for particular MARP audiences. Below the findings are discussed, conclusions made and recommendations put forward to inform SBCC programming using social media.

Mobile Phones

Almost all respondents reported high levels of access to cell phones and the ability to text messages, with MSM reporting the highest access to a working cell followed by MSW and FSW. This being said, sex workers were much less likely to use the internet on their phones or send or receive pictures, video, and sound clips than were MSM. This is likely due to the fact that such phone capabilities are more expensive and sex workers may not have as high a level of disposable income to buy these types of phones as compared to MSM. Among all populations, communication via text, pictures, video, and sound clips with nonpaying casual sex partners was the most common use of mobile phones. Only FSW reported a high rate of communication with significant others (boyfriends/girlfriends). All populations reported communicating most frequently with family and friends.

Implications of findings: MARPs vary regarding their level of access to technology, preferences and ability to use communication technologies, and the type of secondary audiences that may also be addressed in SBCC programming.

Recommendation: Ensure interventions for MARPs take into account their target audience's level of technology access and preferences for using these technologies.

Recommendation: In designing SBCC interventions for MARPs take into consideration secondary audiences (i.e., sex partners, friends, family) for dissemination of messages and promoted actions (i.e., call to action to share information with a friend, engage in dialog around STI /HIV testing with a sexual partner).

Internet Use

While almost all MSM and MSW reported that they accessed and used the Internet, only about a third of FSW did so. This may be due to lack of monetary or equipment resources and the capacity to go online. Among respondents using the Internet, social media use was the most frequently cited reason for Internet use by MSM and MSW and the second most frequently cited reason for FSW. Accessing email and viewing entertainment sites were also popular among all populations. Among MSM and MSW, viewing pornography online was also one of the most frequently reported reasons for using the Internet. FSW and MSW frequently looked for casual sexual partners online. Accessing health information on the Internet was only reported as a reason for use by about one-of-ten MSM and MSW. In contrast, more than half of FSW used the

Internet to seek information on health and well-being. MSM and MSW mainly accessed the Internet at home while FSW mainly accessed the Internet at Internet cafes.

Social Media Use

Use of social media was highest among MSM in terms of access, amount of time spent on social media sites, and number of friends in social networks. FSW spent the least amount of time on social media and had the smallest network of friends. The use of social media to make new friends, stay up to date with family and friends, and view entertainment was popular among all populations. In addition, MSW and FSW used social media to find potential casual sex partners. Like communication through cell phones, all populations used social media to communicate with friends and family. All populations, however, frequently reported communicating with acquaintances through social media, which differed from who they reported communicating with via cell phones. In addition FSW and MSW used social media to search and communicate with potential casual sex partners while MSM mainly used social media to make new friends or stay up to date with family and friends.

All populations reported looking for entertainment and current affairs while on social media sites. Among MSM and MSW, pornography was also frequently mentioned. Health information was also viewed by all populations, but only frequently by FSW. Using social media sites to view health information was reported at a lower rate than looking at health information online.

Almost all of the respondents on social media sites reported they are willing to share any information if they thought it would interest and help others, it was new, or entertaining. FSW were more likely than other populations to share information if it promoted themselves. Of the populations, MSM were more likely to post and upload information onto social media sites. The MSM group reported posting frequently. Of the populations, FSW posted the least. MSM also had the largest social network on social media sites with about a third who reported having 600 or more friends.

Facebook was the most popular social media site visited by all populations and was the most named location for group pages, social and lifestyle blogs, and chat rooms visited. In addition YouTube, Tagged, and Twitter were frequently named. For MSM, Adam for Adam (a gay website) was popular. Among MSM and MSW, pages for dating, chatting, and pornography were popular. Most MSM and MSW reported visiting group pages focused on MSM issues.

Across all populations, entertainment pages following celebrities and musicians (both international and local) were popular, such as Yardieboyz. In addition, MSM named human rights pages focusing on LGBT rights internationally and in Jamaica. For current affairs the Pink Report was specifically named by a few respondents across populations.

Implications of findings: The Internet/social media are important channels for communicating with MARPs and for effective utilization, various site and page preferences should be considered segmented for MARPs for messages dissemination, interaction, and intervention recruitment. In addition, since sex workers are heavily using social media to communicate with potential sex partners, social media can be an important channel for sexual health and personal safety information.

Recommendation: Integrate the use of social media into current programming with MARPs via opt-in program options. Consider the appropriateness of using social media as a communication channel when developing communication and new program strategies.

Recommendation: Further explore the intended audiences' motivation for accessing social media beyond frequency and use. Understanding why intended audiences access what they do will ensure tailored and appropriate interventions.

Recommendation: Directly involve segmented MARPs in social media intervention development to assure that materials are appealing, deemed valuable to share and that they are placed on the most popular social media sites and pages per type of MARP.

Recommendation: Recognize the limitations of selecting a social media channel. For example text messages can only impart a certain amount of information, while web-based campaigns can provide more information but require a certain level of access. Web-based platforms also have application for mobile phone technology. Consider using multiple approaches, social and mobile phone-based media, to reach the intended audience through multiple channels and more than once.

Recommendation: Ensure that communication approaches using social and mobile phone-based media are multidirectional and do not rely too heavily on one-way communication. Instead, communication strategies employing these platforms should find interactive ways in which social media use can encourage discussion and active participation among MARP audiences toward their personal and collective protection. Text, email, and web-based campaigns and programs can all be used as ways of imparting information (e.g., clinic appointment reminders, health messages, etc.), but they can also be interactive and employ multidirectional communication approaches (e.g., anonymous, online small group discussions led by peer educators, HIV-prevention text quizzes, etc.), thereby reinforcing and extending a program's reach, depth, and impact.

Recommendation: Always ensure the privacy and confidentiality of your audience and take precautions to ensure that their personal information is not compromised. Remember that anything sent via social media or text may be viewed by others. Ensuring the safety and confidentiality of the audience is paramount.

Health Information Seeking

Health information seeking habits online varied among the three populations. Most MSM infrequently or never looked online for health information. While MSW and FSW reported looking at health information online more frequently, only a few did so more than two to three times a week. When asked to identify trusted sources of information, social media special interest groups were not reported frequently by any group, which is reflected in the low reported use of the Internet to find health information. The most trusted sources of information among all the populations were health professionals, family, and friends, with FSW and MSM most frequently reporting their trust in health professionals. Among all populations, sexual partners and significant others were not considered highly trusted sources of health information.

All populations expressed a high level of interest in receiving group-specific information on health and well-being, but the populations differed in how they would like to receive

information. MSM would prefer information through email, in person, on social media sites, and through text messages. FSW would like to receive information in person, by text, social media sites, radio, and print. MSW would like to receive information on sex worker-specific health/well-being by text, in person, email, or on social media sites. For information on MSM, the channels were similar except they would also like to receive print materials. Private channels such as email, in person, and text were preferred by all populations, which may speak to the stigma and discrimination MSM and sex workers tend to face. MSM and sex workers expressed a low level of preference for radio as a medium for health information.

Implications of findings: While MARPs do not frequently go on line to seek health information, their regular use of social media and cell phones may be important channels for communicating MARP-relevant health information and related engagement. The use of interpersonal communication and the most MARP-trusted sources as messengers of health information is also evident in the findings.

Recommendations: Involve individuals trusted by MARP audiences to communicate MARP-relevant health information. Include health professionals to communicate credibility messages or programs. Consider tapping into individuals with larger social networks closer to MARPs, such as friends and family, or MARPs themselves, as change agents to further engage and reach these communities regarding sexual health and safety.

Recommendation: Do not use social media/mobile technology as the sole channel for communicating health information with MARPs. Employ a variety of mutually reinforcing communication channels for interventions including interpersonal communication as a major way to engage MARPs around MARP-relevant health topics.

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Appendix I: Glossary of Terms

Term	Definition
Blog	A personal website or web page that an individual uses to record opinions, links to other sites, etc. on a regular basis.
Casual sex partner	Not a regular or permanent sexual relationship or encounter occurring between people who are not regular or established sexual partners.
Chat room	An area on the Internet or other computer network where users can communicate, typically limiting communication to a particular topic.
Group chat	A group of people who communicate regularly via the Internet, usually in real time but also by email.
Group page	A page on a social networking site for persons with a common interest. For example a Facebook page for everyone who like Michael Jackson or a page for people who play dominoes.
Lifestyle/social blog	A personal website or page written to express views on a specific topic like fashion, technology, or cars, such as the Pink Report.
Long-term sexual partner	A regular or permanent sexual relationship or encounter occurring between people who are regular or established partners.
Social media	The use of web-based and mobile technologies to turn communication into active dialogue.
Social media network	Site that focuses on building relationships among people, who, for example, share interests and/or activities. A social network service essentially consists of a representation of each user (often a profile), his/her social links, and a variety of additional services, for example, Facebook, Twitter, Hi5.
Text messaging	An electronic communication sent and received by cellular phone.
Upload	Transfer (data) from one form of technology to the next, i.e., from a camera to the computer or from the phone to computer; transmit (data).
Website	A collection of related web pages containing images, videos, or other digital assets.

Appendix II: Social Media Assessment Questionnaire

1. Data collector number: _____
2. Have you answered a survey about the Internet or cell phones in the last three months?
 - a. Yes
 - b. No
3. How old were you at your last birthday?
 - a. 18 or under
 - b. 18–24
 - c. 25–30
 - d. 31–36
 - e. 36–41
 - f. 41 and over
4. Place of interview:
 - a. Party
 - b. Business/ office
 - c. House
 - d. Bar/club/massage parlour
 - e. On the road/park/street-side
 - f. Other public location
5. What is your sex:
 - a. Male
 - b. Female
 - c. Transgender Male to Female
 - d. Transgender Female to Male
6. What Parish do you live in?
 - a. Clarendon
 - b. Hanover
 - c. Kingston and St. Andrew
 - d. Manchester
 - e. Portland
 - f. St. Ann
 - g. St. Catherine
 - h. St. Elizabeth
 - i. St. James
 - j. St. Mary
 - k. St. Thomas
 - l. Trelawny
 - m. Westmoreland
7. Have you been paid for sex in the last three months?

- a. Yes
 - b. No
8. Have you had sex with a man in the past 12 months?
- a. Yes
 - b. No
9. What was the highest grade you finished in school?
- a. Never went to school
 - b. Grade 1–3
 - c. Grade 4–6
 - d. Grade 7–9
 - e. Grade 10–12
 - f. Some tertiary
 - g. Vocational/technical school
 - h. University degree
 - i. Master's or doctoral degree
10. What is your main job?
- a. Student
 - b. Laborer/service worker/craftsman
 - c. Sales/admin/clerical
 - d. Small business owner (under 10 employees)
 - e. Large business owner/manager (more than 10 employees)
 - f. Professional/technical
 - g. Retired
 - h. Sex work
 - i. Exotic dancer
 - j. No job
 - k. Other
11. How much income did everyone in your house earn last month?
- a. Under 20,000
 - b. 20,000–50,000
 - c. 50,001–150,000
 - d. 151,000–300,000
 - e. Over 300,000
 - f. Don't know/refused
12. What is your marital status?
- a. Married
 - b. Common-law marriage
 - c. Separated
 - d. Divorced
 - e. Living together
 - f. Long-term relationship but not living together

- g. Single, never married
 - h. Widow/widower
13. Do you use the Internet (at your home or somewhere else)?
- a. Yes
 - b. No
14. Where do you use the Internet the most?
- a. Your home
 - b. Friend or relative's home
 - c. Work
 - d. Internet cafe
 - e. School
 - f. On your phone
 - g. Someplace else
15. Why do you use the Internet? (*Select up to five.*)
- a. To email
 - b. Go to social media sites
 - c. Look at entertainment sites
 - d. To look at porn
 - e. Find casual sexual partners
 - f. Find long-term sexual/dating partners
 - g. For work purposes
 - h. Find educational/news content
 - i. Find info on health/well-being
 - j. Play games
 - k. Shop online
 - l. To blog
 - m. Something else
16. Please specify: _____
17. What social media sites do you visit? (*Choose all that apply.*)
- a. Facebook
 - b. Twitter
 - c. LinkedIn
 - d. YouTube
 - e. Tagged
 - f. Pink Report
 - g. Adam for Adam
 - h. SmutVibes
 - i. Blogster
 - j. BGCLive.com
 - k. None, I don't go to social media sites
 - l. Other

18. Please specify: _____

19. What social media site do you visit **most OFTEN**

- a. Facebook
- b. Twitter
- c. LinkedIn
- d. YouTube
- e. Tagged
- f. Pink Report
- g. Adam for Adam
- h. SmutVibes
- i. Blogster
- j. BGCLive.com
- k. Other

20. Please specify: _____

21. On average, how much time **PER DAY** do you spend on social media sites?

- a. Less than once per day
- b. Less than 30 minutes per day
- c. 30 minutes–1 hour
- d. 1–3 hours
- e. 3–5 hours
- f. 5–8 hours
- g. more than 8 hours

22. How many friends do you have on your social network profiles?

- a. Less than 10
- b. 10–50
- c. 50–100
- d. 100–300
- e. 300–600
- f. 600–1,000
- g. Over 1,000
- h. Not sure

23. What group pages on a social media site do you visit the most? _____

24. What lifestyle or social blog do you follow the most: _____

25. What chat room do you visit the most: _____

26. Who do you talk with **the most** on social network sites (*Select up to 3*)²³:

²³Adapted from:

<http://spreadsheets.google.com/viewform?formkey=dENPRktycGhocTVaR2R3MW9tN3UwOFE6MA>

- a. Family
 - b. Girlfriend
 - c. Boyfriend
 - d. Potential casual sexual partners
 - e. Potential long-term sexual/dating partners
 - f. Friends
 - g. Acquaintances
 - h. Strangers
 - i. Someone else
27. Why do you spend time on social media sites (*Select up to 5*)²⁴:
- a. Stay up to date with family & friends' lives
 - b. Share experiences/opinions
 - c. Make new friends
 - d. Find casual sexual partners
 - e. Find long-term sexual/dating partners
 - f. View entertainment
 - g. Find out about parties
 - h. Conduct business
 - i. Play games
 - j. Other
28. Please specify: _____
29. How often do you post updates or upload items to social media sites?
- a. Several times a day
 - b. Once a day
 - c. Weekly
 - d. Monthly
 - e. Infrequently
 - f. Never
30. What type of info do you look for on social media sites
- a. Current affairs
 - b. Health info
 - c. Entertainment info
 - d. Porn
 - e. Travel info
 - f. Job info
 - g. Other info
31. Specify: _____

²⁴Adapted from:

<http://spreadsheets.google.com/viewform?formkey=dENPRktycGhocTVaR2R3MW9tN3UwOFE6MA>

32. Why do you share information on social media sites?
- a. It was new
 - b. It was entertaining
 - c. I received the info from someone I trust
 - d. I thought it would interest/help others
 - e. To promote myself
 - f. I would not share info
 - g. Other reason
33. Specify: _____
34. Would you share health info with friends/family on a social media site?
- a. Yes
 - b. No
35. Why would you share HEALTH info with friends on a social media site? (*select all that apply*):
- a. It was new
 - b. It was entertaining
 - c. I received the info from someone I trust
 - d. I thought it would interest/help others
 - e. Other reason
36. Please specify: _____
37. How often do you look for HEALTH info online?
- a. Daily
 - b. 2–3 times per week
 - c. Weekly
 - d. Monthly
 - e. Infrequently
 - f. Never
38. Who would you trust getting health information from (*select all that apply*):
- a. Family
 - b. Friends
 - c. Girlfriend
 - d. Boyfriend
 - e. Casual sexual partner
 - f. Acquaintances
 - g. Strangers
 - h. Social media special interest group
 - i. Community organization
 - j. Health professionals

- k. Private businesses
 - l. Media
 - m. Other
39. Please specify: _____
40. Do you have a working cell phone?
- a. Yes
 - b. No
41. Do you use text or messaging on your phone?
- a. Yes
 - b. No
42. Do you send or receive pictures/videos/sound clips on your phone?
- a. Yes
 - b. No
43. Do you use the Internet on your cell phone?
- a. Yes
 - b. No
44. Who do you send text/messages or pictures/video/sound clips to (*select all that apply*)²⁵:
- a. Family
 - b. Girlfriend
 - c. Boyfriend
 - d. Casual sexual partners
 - e. Nonpaying casual sexual partners
 - f. Friends
 - g. Acquaintances
 - h. Someone else
45. Would you be interested in getting info on health/well-being that is especially for sex workers?
- a. Yes
 - b. No
 - c. Not sure
46. How would you like to receive this information (*select all that apply*):
- a. Social media site
 - b. Text messaging
 - c. Picture/video/sound clip on phone
 - d. Email

²⁵Adapted from:

<http://spreadsheets.google.com/viewform?formkey=dENPRktycGhocTVaR2R3MW9tN3UwOFE6MA>

- e. In person (e.g., facility worker)
 - f. Radio
 - g. Print (e.g., brochure)
 - h. Other
47. Would you be interested in info on health/well-being that is especially for men who have sex with men?
- a. Yes
 - b. No
 - c. Not sure
48. How would you like to receive this information (*select all that apply*):
- a. Social media site
 - b. Text messaging
 - c. Picture/video/sound clip on phone
 - d. Email
 - e. In person (e.g., facility worker)
 - f. Radio
 - g. Print (e.g., brochure)
 - h. Other

END INTERVIEW