

# TECHNOLOGY-RELATED PREDICTORS OF SOCIAL ISOLATION AMONG YOUNG BLACK MSM

Authors: Lisa Hightow-Weidman, MD, MPH, Sara LeGrand, Ph.D, Karina Soni, Helene Kirschke-Schwartz, Seul Ki Choi, MPH, Kathryn Muessig, Ph.D

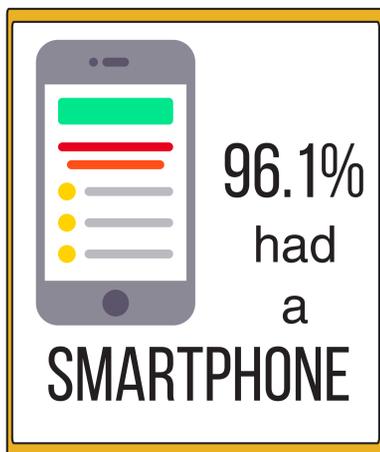
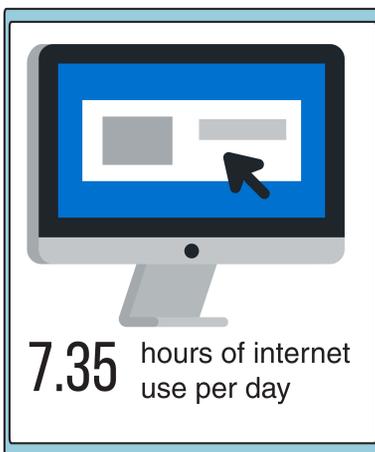
**Background:** Young black men who have sex with men (YBMSM) are disproportionately affected by HIV. Social networking sites can facilitate opportunities for YBMSM to meet sex partners, but may also create supportive communities and provide health information access.

**Methods:** healthMpowerment.org (HMP) is a mobile-phone-optimized, Internet-based intervention for YBMSM that provides information, resources, tailored feedback, and social networking platforms to offer and receive social support from peers. A randomized controlled trial of HMP enrolled 474 YBMSM in North Carolina between November 2013 and October 2015. Bivariate and multivariate analyses were conducted at baseline to identify technology-related predictors of social isolation measured by perceived social support received by family and friends using the Lubben Social Network Scale-6.

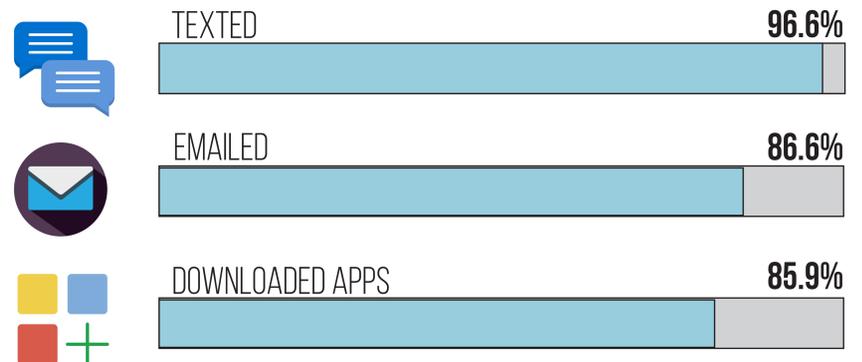
**Results:** The mean age was 24.3 years, 39.5% were HIV+. Men reported a mean of 7.35 hours of Internet use per day, 98.3% went online using a mobile device in the past month and 96.1% owned smartphones. Almost all (98.7%) had >1 account on a social networking site; the mean number of accounts was 3.62. Overall 36.4% of participants were socially isolated. Socially isolated YBMSM had fewer social networking accounts (3.16 versus 3.88;  $p < 0.01$ ), and were less likely to use Twitter or Instagram compared to those who were not socially isolated. There was no difference in Facebook usage between the groups. Those who were socially isolated were less likely to search for sex partners online, though were more likely to search for partners using Craigslist ( $p < 0.01$ ). Social isolation was associated with less health application (app) usage in the previous three months (30.8% vs. 40.5%,  $p = 0.038$ ). In multivariate analysis controlling for age, education, income and HIV status, a greater number of social network sites used (OR 0.87; CI 0.76-0.99) and health app usage (OR 0.64, CI 0.41-1.00) were associated with decreased social isolation.

**Discussion:** Online social networks may help YBMSM find like others and reduce feelings of social isolation. This could be particularly important for those living in rural areas or who face stigma around their sexuality or HIV-status. A comprehensive understanding of YBMSM online behaviors, including usage patterns and specific sites used, can inform future prevention interventions.

## INTERNET USAGE

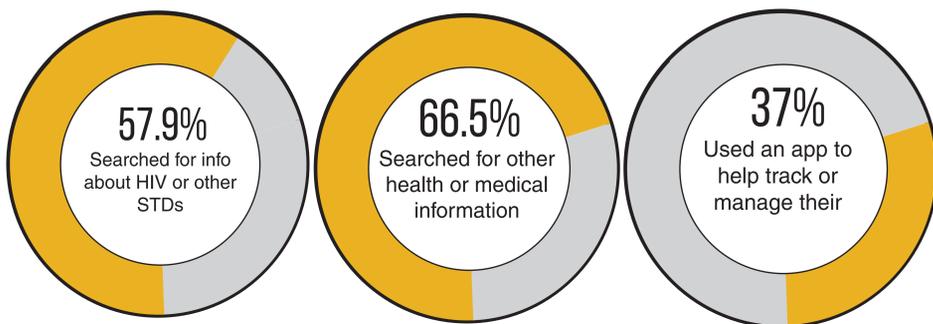


WITHIN THE PAST THREE MONTHS:



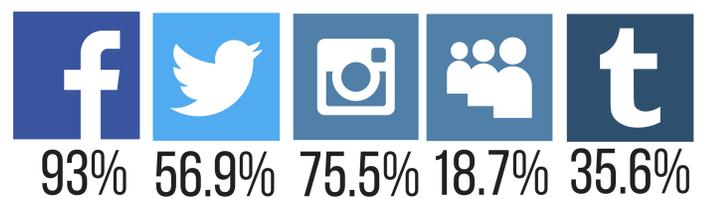
## HEALTH + THE WEB

WITHIN THE PAST THREE MONTHS:

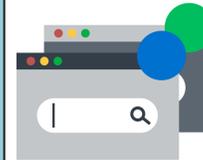


## SOCIAL MEDIA

98.2% HAD AN ACCOUNT ON A SOCIAL NETWORKING SITE, HERE'S THE BREAKDOWN:



IN THE LAST THREE MONTHS, 68.4% SEARCHED FOR A SEX PARTNER ON THE INTERNET



85.7% VISIT A SOCIAL NETWORK AT LEAST DAILY (406/474)

36.4% WERE SOCIALLY ISOLATED

Socially isolated YBMSM had fewer social networking accounts (3.16 versus 3.88;  $p < 0.01$ )



SOCIALLY ISOLATED YBMSM COMPARED TO THOSE NOT SOCIALLY ISOLATED

More Likely to Use:

Craigslist (45.7% vs. 29.1%;  $p = 0.005$ )

Less Likely to Use:

Twitter (50.8% vs. 64.0%;  $p = 0.013$ )

Instagram (65.3% vs. 81.2%;  $p < 0.001$ )

MySpace (12.3% vs. 22.5%;  $p = 0.008$ )

Tumblr (26.8% vs. 40.9%;  $p = 0.003$ )

LinkedIn (18.6% vs. 30.04%;  $p = 0.009$ )

No difference in usage:

Facebook (89.9% vs. 94.7%;  $p = 0.061$ )

Google Plus (32.7% vs. 37.7%;  $p = 0.306$ )

Grindr (47.1% vs. 53.6%;  $p = 0.337$ )

Adam4Adam (66.7% vs. 70.1%;  $p = 0.605$ )

BGC Live (33.7% vs. 30.1%,  $p = 0.520$ )

Jack'd (73.8% vs. 80.1%;  $p = 0.203$ )

### MEASURES

Social Isolation was measured using the Lubben Social Network Scale. A participant with a cutoff of  $\leq 12$  was considered socially isolated measured by perceived social support received by family and friends.

#### LUBBEN SOCIAL NETWORK SCALE - 6 (LSNS-6)

FAMILY: Considering the people to whom you are related by birth, marriage, adoption, etc...

1. How many relatives do you see or hear from at least once a month?
2. How many relatives do you feel at ease with that you can talk about private matters?
3. How many relatives do you feel close to such that you could call on them for help?

FRIENDSHIPS: Considering all of your friends including those who live in your neighborhood

4. How many of your friends do you see or hear from at least once a month?
5. How many friends do you feel at ease with that you can talk about private matters?
6. How many friends do you feel close to such that you could call on them for help?

All responses scaled: 0 = none 1 = one 2 = two 3 = three or four 4 = five thru eight 5 = nine or more. LSNS-6 total score is an equally weighted sum of these six items. Scores range from 0 to 30.