

# TECHsex USA

Youth Sexuality and Reproductive Health  
in the Digital Age

March 2011



FORDFOUNDATION





# TECHsex USA

Youth Sexuality and Reproductive Health  
in the Digital Age

**Robin Boyar, founder and principal, thinktank research and strategy**

**Deb Levine, executive director and founder, ISIS, Inc.**

**Natalie Zensius, director of marketing and communications, ISIS, Inc.**

supported by

**THE FORD FOUNDATION**

### **About the Authors**

ISIS, Inc. is a not-for-profit organization founded in 2001 and based in Oakland, California. Using next-generation technologies and new media, ISIS, Inc. supports and empowers young people to make informed decisions about their sexual activity, thereby enabling them to become sexually healthy, mature adults. More information is available at [www.isis-inc.org](http://www.isis-inc.org)

thinktank research and strategy is a consultancy specializing in research and strategy for gaming, entertainment, new media, and young people. More information is available at [www.thinktank8.com](http://www.thinktank8.com)

### **About the Ford Foundation**

The Ford Foundation supports visionary leaders and organizations on the frontlines of social change worldwide. More information is available at [www.fordfoundation.org](http://www.fordfoundation.org)

### **Acknowledgments**

The authors wish to thank the following for their contributions to this report: Dr. Melissa Gilliam and Kylene Guse in the Section of Family Planning at the University of Chicago; Dovetta McKee, JD, Office of Special Programs at the University of Chicago; Benjamin Kupersmit, president of Kupersmit Research; Lauren Chow at Peanut Labs; Alex Hernandez at UCSF; the alumni parents from Peralta Elementary School, Oakland Unified School District; Dr. Bhupendra Sheoran, Deputy Director at ISIS, Inc.; Jenna Gaarde, program associate at ISIS, Inc.; Hae Yuon Kim of Tobi Designs; and Marla Wilson of Printed Page Publishing.



This work is licensed under the Creative Commons Attribution-ShareAlike 3.0 Unported License. You are welcome to share, copy, distribute or adapt the work, with attribution as follows: Boyar, R, Levine, D, Zensius, N. TECHsex USA: Youth Sexuality and Reproductive Health in the Digital Age. Oakland, CA: ISIS, Inc. April, 2011.



# CONTENTS

**LIST OF TABLES** ..... 4

**INTRODUCTION** ..... 5

**I. METHODOLOGY** ..... 7

**II. FINDINGS** ..... 11

*Current Sexual Landscape*

*Digital Landscape*

*Digital Landscape and Health*

*Service, Website, and Program Awareness and Usage*

*Proposed Concepts*

**III. RECOMMENDATIONS** ..... 35

*General Improvements and Opportunities*

**IV. CONCLUSION** ..... 39

**ENDNOTES** ..... 42

**LIST OF TABLES**

*Figure 1: General Topics of Importance . . . . . 13*

*Figure 2: Types of Related Health Information That are Important . . . . . 14*

*Figure 3: Types of Health Information That are Important. . . . . 15*

*Figure 4: Technology Platforms Owned. . . . . 19*

*Figure 5: Online Activities Via a Computer . . . . . 20*

*Figure 6: Weekly Online Social Network Activities . . . . . 21*

*Figure 7: Weekly Activities on Mobile Phone . . . . . 22*

*Figure 8: Gaming Platforms Used Weekly . . . . . 23*

*Figure 9: Avenues for Learning . . . . . 25*

*Figure 10: Most Effective Ways to Learn About Sex . . . . . 27*

*Figure 11: Online Sites Visited . . . . . 28*

*Figure 12: Interest in Ten Concepts. . . . . 31*

*Figure 13: Responses by Race and Ethnicity to Ten Concepts . . . . . 32*

## INTRODUCTION

Over the past eight years, as US school-based sex education efforts focused on abstinence-only models, the field of sexuality and reproductive health education moved outside the classroom and into the world of technology, expanding access to critical health information in a manner consistent with today's youth culture. In 2011, one can count literally hundreds of online and mobile programs conducting awareness, outreach, advocacy, and parent-engagement activities. These sites and programs provide sexual health information and encourage professional development to advance the field of sexuality and reproductive health education.

While the number of programs and activities continues to grow, concerns about the quality and sustainability of efforts, particularly for underserved youth populations and their parents, continue to hamper broader, more widespread acceptance and use. Lack of technical standards and professional guidance have led to a dizzying array of choices without a clear sense of what works and why. A fundamental question, "Do we go where youth are and send messages; or do we build and ask them to come to us?" has never been examined in depth, although conventional wisdom, lore, and organizational self-promotion have declared one or the other to be "most effective." (The associated question, "Do youth respond better to digital content created by other youth, or would they prefer to get information online from experts?" has also never been answered confidently or scientifically.) The resulting impasse has forced professionals to make decisions based on their own technology comfort level, capacity for using new technology, and organizational constraints, instead of the value of their own knowledge and experience and the needs and actions of their audience to create new evidence-based models for sexuality education.

In 2010, ISIS, Inc. received funding from the Ford Foundation to begin a dialogue with stakeholders to better understand the environment and examine measures to ensure quality and standards around sexual and reproductive health education and digital media. The focus of this

project was to understand how youth and young adults, especially urban youth of color, use technology for their sexual and reproductive health and to determine interest in new digital programming concepts to advance the field.

This white paper provides an overview of the current youth sexual health and digital landscapes. It also provides insight into how youth and young adults, particularly youth of color, use technology to learn, communicate, and discuss sexual and reproductive health. It highlights specific needs and usage patterns of underserved populations, determines awareness and success of various digital services, ascertains interest in new digital programs, and provides recommendations and opportunities for the field of sexual and reproductive health.

A close-up portrait of a young man with dark skin and braided hair. He is looking directly at the camera with a neutral expression. He is wearing a blue shirt with a black collar. The background is plain white.

# I. METHODOLOGY

## I. METHODOLOGY

1. One-on-one half-hour qualitative interviews were conducted by phone with professional stakeholders (N=11) in the areas of philanthropy, digital learning, sexual health, and technology. The goal of the interviews was to ascertain a professional viewpoint about the impact of digital media and technology on the field of sexual and reproductive health. The interview questions were written by ISIS, Inc. and thinktank research and strategy. The interviews were conducted and audio-recorded by thinktank research and strategy with the following people:

*Susannah Allison*, program officer, Infants, Children and Adolescents Program, HIV/AIDS Research, National Institute of Mental Health

*danah boyd*, social media researcher and fellow, Harvard University's Berkman Center for Internet and Society

*Sheana Bull*, associate professor, Community and Behavioral Health, University of Colorado School of Public Health

*Rocio Córdoba*, program officer, Sexuality and Reproductive Health and Justice, Ford Foundation

*Susannah Fox*, associate director, Digital Strategy, Pew Center for Internet and American Life

*Beth Kanter*, visiting scholar for social media and nonprofits, Packard Foundation

*Marianna Sachse*, former program officer, Vulnerable Populations, Robert Wood Johnson Foundation

*Elizabeth Schroeder*, executive director, Answer/Sex, Etc.

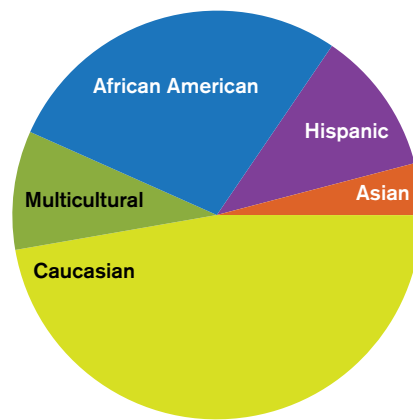
*Erin Sines*, program officer, Population and Reproductive Health, MacArthur Foundation

*Tom Subak*, vp, Strategic Initiatives, Planned Parenthood Federation of America (PPFA)

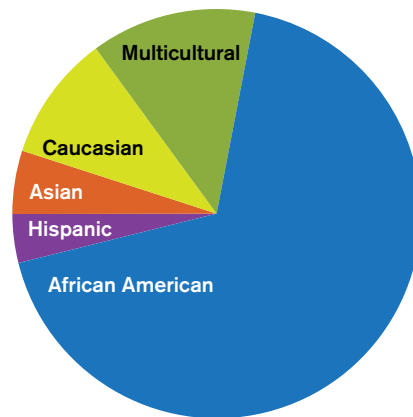
*Larry Swiader*, senior director, Digital Media, The National Campaign to Prevent Teen and Unplanned Pregnancies.

2. An online survey about youth and young adult use of digital programs and devices, knowledge of sexual and reproductive health, and related services was conducted in January 2011. We surveyed 1500 participants aged 13–24 years. Fifty percent were women, 48% were men and 2% reported being transgendered individuals. Nineteen percent of the sample was in the age group 13–15, 36% 16–18, 32% 19–21, and 13% 22–24. Almost half of the participants were Caucasian (46%), 27% were African American, 11% Hispanic, 4% Asian and 9% self-reported their ethnicity as “multicultural.” The margin of error within the survey was +/- 3%, with a 95% confidence level; meaning that if the same survey was executed 100 times, the data would be within 3 percentage points above or below the percentage reported in 95 of the 100 surveys.

The survey was designed by ISIS, Inc./ thinktank research and strategy. Peanut Labs fielded the survey, leveraging their existing corporate relationships and proprietary technology to post links and profile a sample of respondents aged 13–24 who visit popular social networking, gaming, and virtual sites, such as Facebook, IMVU, Gaia Online, Nexon, Pogo.com, Weeworld, Meez, EA, and Ubisoft.



Survey Participants by Race/Ethnicity  
N=1500



Focus Group Participants by Race/Ethnicity  
N=113

- 3.** Focus groups were conducted in downtown Oakland, California in January 2011 and in South Side Chicago, Illinois in February 2011 with youth and young adults, mostly of color. The focus groups were facilitated by thinktank research and strategy; recruitment, scripts, and observation were conducted by ISIS, Inc. In each location, six sessions (with an average of 10 people per session) were conducted. A total of 113 youth and young adults participated. Forty-eight percent were men and 52% women. About one-third (35%) of the participants were 13–15 years of age; 34% 16–18; 11% 19–21; and 22% 22–24. Almost three-quarters (68%) of the group participants were African American, 10% Caucasian, 4% Hispanic, 5% Asian, and 13% self-reported their ethnicity as “multicultural.”
- 4.** A non-systematic review of recent published and syndicated reports within the sexual and reproductive health, digital, education, and consumer arenas (eg, Pew Internet Studies, Kaiser Family Foundation studies, Rand working paper, and published peer-reviewed journal articles) was conducted by thinktank research and strategy, with direction provided by ISIS, Inc.

## II. FINDINGS



## II. FINDINGS

# CURRENT SEXUAL LANDSCAPE

### General Overview

Statistics and first person anecdotes paint a mixed, but overall troubling portrait of the youth and young adult sexual landscape, despite years of efforts in sexual and reproductive health education. While programs and services may have reached mainstream youth, youth of color are engaging in sex earlier and bearing the burden of negative consequences of risky behaviors disproportionately.

Currently, about 60% of 15 to 19 year olds who are unmarried have engaged in sex at least once. On a monthly basis, about 25% are sexually active.<sup>1</sup> Low income, urban youth are more likely to engage in sexual behavior at earlier ages. In the focus groups, which were comprised of mostly African-American youth in Oakland, California and Chicago, Illinois, many 14 and 15 year old girls and boys were sexually active. Girls talked about losing their virginity at early ages and the threat of teenage pregnancy. Many had friends who had either become pregnant, had a baby, or had an abortion.

While the US teen pregnancy rate has been generally declining for the last twenty years and is at a historic low of 39.1 per 1,000 teens,<sup>2</sup> pregnancy and birth rates for those 15 to 19 years old is much higher than those aged 15 to 19 years in other Western industrial nations. Furthermore, African American and Hispanic teens have the highest birth rates with 126 and 127 births, respectively, per 1,000 teens.<sup>3</sup>

Most youth *are* utilizing birth control, sometimes. Approximately 80% of unmarried teenagers used contraception the first time they had sex, and 68% of unmarried women and 81% of unmarried men, used a condom. At their last time of intercourse, 84% of women and 93% of men used contraception.

However, significant gaps exist in consistent and correct usage of condoms and daily pill usage. When combining teenagers' healthy fertility rates, a statistic that notes that 14% of women and 18% of men would be "a little pleased or very pleased"<sup>4</sup> to get pregnant or make a woman pregnant, plus the realities of the adolescent developmental stage of life, it is no wonder that many youth are using contraception sometimes—but not every time—they engage in sexual intercourse.

As one focus group respondent bluntly noted:

*“If you want to get pregnant, don’t use a condom.”*

The messages of using condoms, delaying sexual activity, and practicing abstinence have been delivered to youth, as evidenced in the focus group conversations. Youth and young adults, including low-income youth of color, have received these messages from various sources such as parents, teachers, websites, and health care professionals throughout their lives.

But despite this knowledge, focus group respondents noted that either they or their friends often ignored these recommended practices. Experts cited a variety of reasons for this behavior: drug and alcohol use, carelessness, or the lack of reasoning skills based on adolescent cognitive development. In the heat of the moment, it is difficult for youth to always “do the right thing.”

*“You know what you’re doing, but you’re stupid.”*

There were other cultural issues at play, as well. Men and women were less likely to use a condom if they were in long-term relationships. Men noted that if a woman said she is on birth control, they are less likely to use a condom.

Despite regular condom use, many youth engage in other risky behaviors such as oral sex or anal sex that may leave them vulnerable to STIs such as gonorrhea, chlamydia, HIV, and HPV.

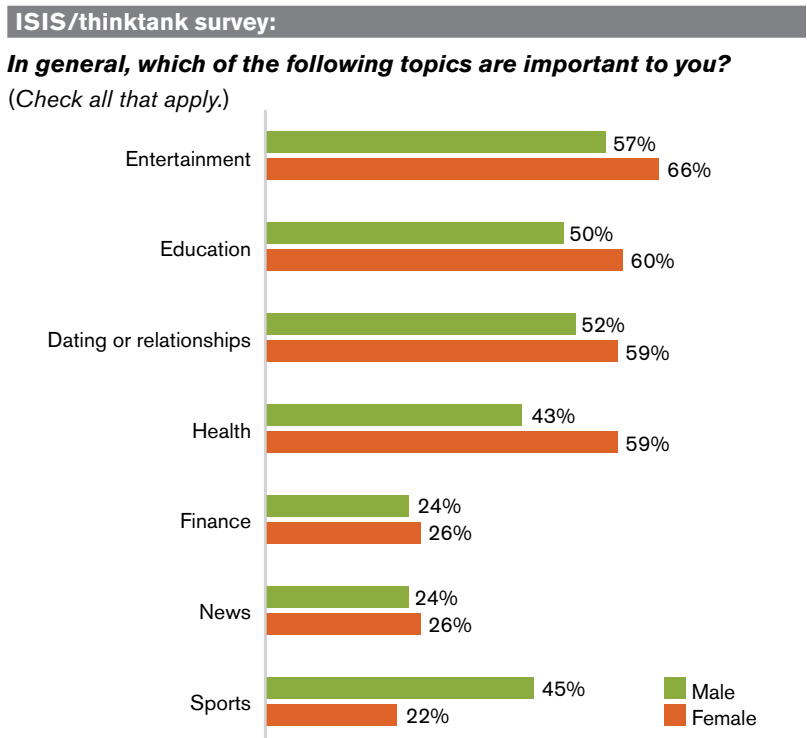
Youth aged 15 to 24 account for half of the sexually transmitted infections acquired annually, despite comprising only 25% of the total US population.<sup>5</sup> It has been widely reported that a quarter of all teenage girls suffer from some type of STI with one in five becoming infected within a year of their first sexual encounter.<sup>6</sup> Youth of color are disproportionately affected by STIs, including HIV, across the nation, with chlamydia rates for young African-American women reaching nine times as high as rates for Caucasian youth. African Americans were disproportionately affected by HIV infection, accounting for 55% of all HIV infections reported among persons aged 13–24.<sup>7</sup>

At this stage in their lives, youth and young adults are engaged in a significant period of self-exploration and growth. Much of this evolves through relationships with friends and romantic interests and takes place within their social networks at school, in their communities, and online.

Results from the ISIS/thinktank survey indicated that dating or relationships were important to 52% of men and 59% of women, and health was important to 43% of men and 59% of women (Figure 1).

When asked about specific health-related topics, those pertaining to weight control and fitness were most important, with about a third of all men and half of all women checking off weight control or dieting as important to them.

Figure 1: General Topics of Importance



**ISIS/thinktank survey:**

**What types of related health information is important to you?**

(Check all that apply.)

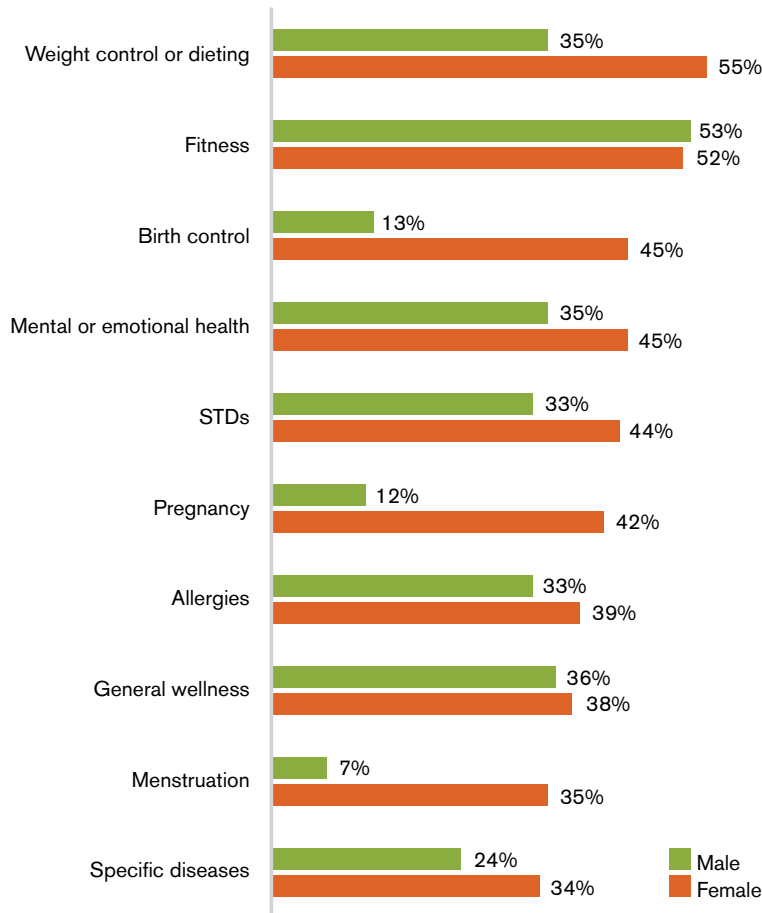


Figure 2: Types of Related Health Information That are Important

Slightly more than half of all men and women stated that fitness is an important topic (Figure 2).

When looking at sexual and reproductive health topics, significant differences exist between men and women in terms of their determined importance. Women are a little more than three times as interested in the issues of birth control (45%) and pregnancy (42%), and five times (35%) as interested in menstruation as men are. Women are also more likely (44%) to be concerned about STIs than men (33%).

The same sexual and reproductive health themes were evident in the focus group discussions as well. Women recognized the greater responsibilities they had toward sexual and reproductive health and taking care of their own bodies.

These themes also varied according to age, race/ethnicity and socio-economic status. In general, younger teens are more apt to be concerned with their changing bodies as they leave puberty and enter adolescence. At this early stage, women are mostly concerned about menstruation and men with the “hows and whys” of sexual behaviors. For example, younger boys are more interested in learning

“how to do it,” and they have questions about things that seem strange or gross to them, such as oral sex.

*“What does it taste like when a girl orgasms in your mouth?”*

*“My girlfriend has been giving me head, so I wanted to know how to return the favor.”*

*“You have to practice on the ugly ones, so you can be ready for the good ones.”*

Female focus group respondents wondered about men’s sexual intentions and how to manage these expectations and interactions.

*“If you have more than one boyfriend, you can get more stuff.”*

As men and women get older and become sexually active, they are more concerned with the risks and consequences. As they mature past sexual initiation, these issues become less concerning.

For example, 40% of women aged 13 to 15 are concerned about STIs, compared to 45% of women aged 16 to 18 and 46% of women aged 19 to 21. Women of ages 22 to 24 are least concerned with STIs (38%). Interest in pregnancy issues slightly declines as women reach their mid-twenties (Figure 3).

Among men, the pattern is less clear. For men 19 to 21, there appears to be a decline in concern around STIs, birth control, and pregnancy, but the concern increases when they reach the ages of 22 to 24. (The data is within the margin of error and as such, it cannot be ascertained if it is statistically significant.)

The above findings were also corroborated in the focus groups. Men typically were less concerned than women about their sexual health, presumably because the risks were of lesser consequence. As one male focus group respondent noted:

*“If she gets pregnant, I can just leave.”*

Women had more concerns, actively discussing how they would struggle with the after-effects of pregnancy and the effects that a baby would have on their future.

However, both men and women were equally concerned about STIs. All respondents noted the serious, and sometimes permanent, nature of STIs.

*“An STD is forever.”*

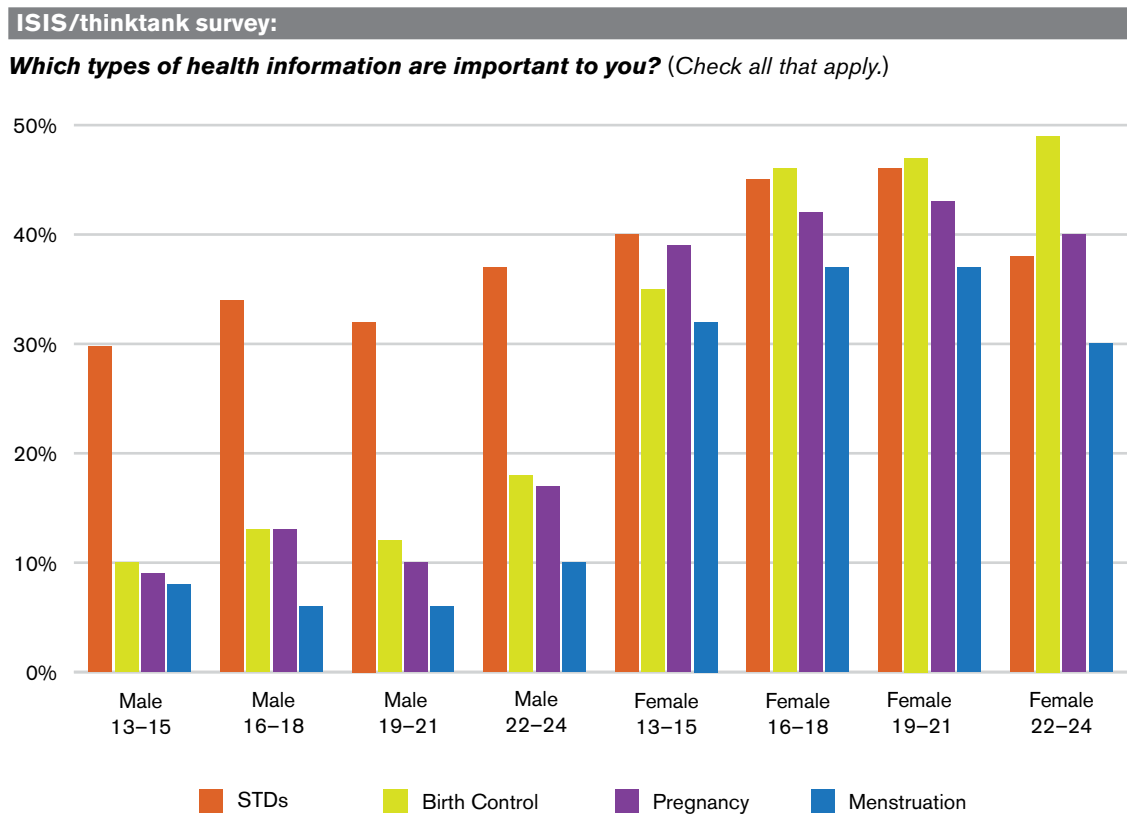


Figure 3: Types of Health Information That are Important

As such, many debated whether they would prefer to have an STI or get pregnant, recognizing the serious consequences of both.

*“I would rather have a STD instead of a baby.”*

*“STDs you can’t control.”*

*“You can start your life over after a baby [Male].”*

### **Learning about Sex**

Professionals interviewed for this paper stated that the sexual education needs of today’s youth are consistent with past generations. Teens and young adults are looking for information, guidance, and services to facilitate healthy and positive sexual attitudes and behaviors. While more information is available than ever before, youth often find this information difficult to acquire.

Additionally, today’s youth are living in a highly sexualized culture with great health risks, such as HIV. Focus group respondents corroborated general knowledge and interviewees’ assessment that sex is everywhere.

*“You see it everywhere you go.”*

*“Every type of media has its take on it—it’s everywhere.”*

*“It’s so easy for a kid to know about it.”*

Yet a lot of misinformation about sex persists in the world, and sex education provided in a formal way can be incomplete or misleading. Focus group participants felt they were surrounded by sex and taught about sex, but continued to be ill-informed about the mechanics and intricacies of the subject.

*“Kids know about it, but they aren’t educated about it.”*

Men and women tend to differ in how they think about sexual health. Men are more likely to think about sex either in terms of arousal (pornography, meeting girls) and negative consequences (STIs, pregnancy). While they are aware of the importance of thinking about sexual communication and relationships, it is clear that “arousal” dominates what they search for or are interested in learning about. Women are more concerned about the health and emotionally related effects of sex and relationships.

When it comes to learning about sex, youth and young adults tend to cite school, friends, family, health professionals, and online sites as the five main sources they use to learn about sexual and reproductive health.

### **Learning About Sex in the School Environment**

In focus groups, younger audiences noted they have been exposed to topics such as anatomy, menstruation, pregnancy, and STIs via sex education or health classes in elementary school, middle school, or high school. In general, reaction was mixed, but students were generally satisfied with the teaching style and information presented in these classes.

Key concerns about the classes often related to the topics presented, instructional style, and relevance to their lives. For example, many youth feel that the same lessons (eg, use a condom, practice abstinence) are repetitively drilled, leaving no room for new topics, concerns, or complexities.

*“I went to a bunch of classes, and after a while, you don’t have to stress the point.”*

Others feel that the topics are not relevant to their life stage—for example, the 16 to 18 year old age group noted that teachers were still not talking about preventing pregnancy when the majority of the class was already sexually active.

Some feel that teachers do not take an appropriate tone—either joking too much, being too authoritarian, or not being a person to whom they can relate.

*“Short old man talking about it.”*

While some of the respondents felt they could trust their teachers or counselors, a few respondents had experienced disturbing breeches of trust.

*“You can tell a counselor... but not a teacher.”*

*“Can’t trust nobody.”*

*“[School nurse] They don’t do anything but sit in their office and eat McDonalds.”*

A few respondents were disturbed by the graphic nature of sex education, citing the videos and photos, especially those of sexually transmitted infections. They felt that fear does not work to deter sexual activity when the competing messages to be sexually active in mainstream culture were so strong.

*“I was distraught by the sex ed videos—turned off.”*

Some youth had been exposed to clinics (either school-based or mobile vans). Overall, they liked the access these clinics provided. Many felt they were a good alternative to going to a family doctor or a finding transportation to get to a non-profit or public health clinic.

### **Health Care Professionals as Trusted Sources**

Doctors and health professionals were generally well respected as trusted sources of information and providers of health care. Some younger focus group respondents noted that they would be uncomfortable going to a family doctor (eg, their pediatrician) because of the relationship they had with them or because their mother or another parent would be in the examining room.

However, as respondents aged, they saw the doctor less as an authority figure and more as a person who could help with, but not necessarily solve, their health problems. A few female focus group respondents who had struggled with serious health issues noted that it was best to research their ailments and concerns before going to a doctor.

*“He’s only gone to one medical school, but if you go online, you can get advice from all over the world.”*

Not-for-profit clinics, specifically Planned Parenthood, mostly got high marks from female focus group respondents that had used the services. Many cited the availability, ease, and relative cost or lack of cost when going to Planned Parenthood.

*“I’ve been going there since I was 14 and first got birth control. They don’t charge me.”*

### **Relationship to Family**

Health care experts noted that today’s youth are closer to their parents than any other generation, and as such, they often turn to their parents or other parental figures for assistance.

Many focus group respondents noted the positive relationships they had with their parents. They also had good experiences talking to older members of their family, including sisters, brothers, aunts, uncles, parents, and grandparents. Many respected the life experience and wisdom that older relatives had, especially when it could potentially affect them.

*“My mom was on birth control and she had a stroke.”*

*“Diabetes runs in my family so I try and monitor it.”*

However, in some instances, these experiences led to faulty beliefs.

*“Birth control can give you cancer.”*

*“Sex is a big explosion; so is having a baby.”*

Others noted problematic relationships with their mothers or other older parental figures, such as grandmothers, stepmothers, or fathers.

*“My mom freaked out when she found my birth control.”*

*“My grandmother would kill me if I got pregnant.”*

Experts interviewed for this white paper noted a prevalence of these cultural values, especially in communities of color. Many teens and youth feel constrained by traditional gender roles and expectations, or in some instances, the lack of positive healthy examples of relationships.

A female focus group respondent clarified how things worked in her family:

*“I’m Latina and in my family, all the males are supposed to be sexually active, but as a female, I’m not supposed to have sex until I’m 42.”*

### **Friends As a Source of Information**

While most male and female focus group respondents talked significantly about sex with their friends, they recognized that the quality of information and advice often varied. Some felt that their friends could not be counted on for good advice, while others felt that their friends were often uneducated or did “stupid” things.

*“Friends give bad advice.”*

As such, it was often better to go online, talk to trusted family members or health professionals rather than get advice from their friends.

# DIGITAL LANDSCAPE

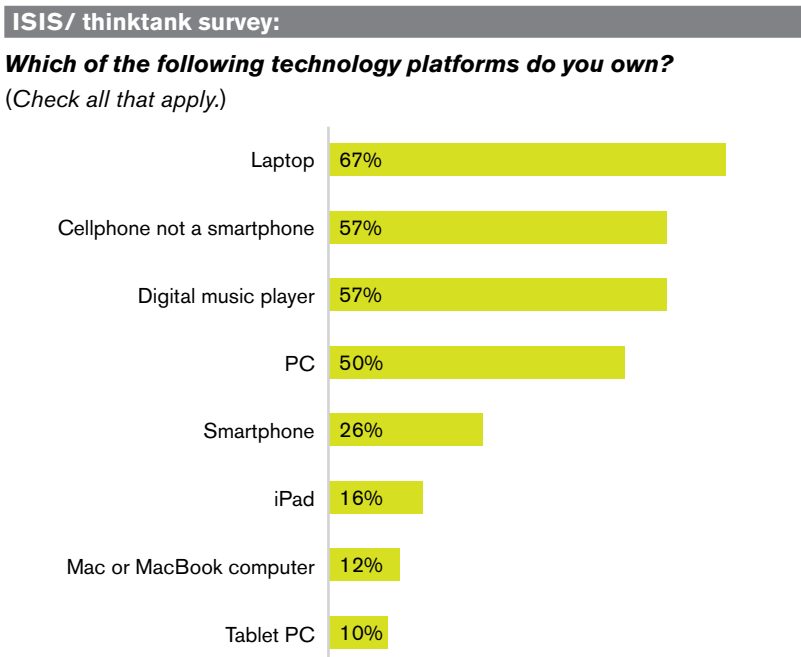
## Technology Ownership by Youth

Today’s youth and young adults are engaging with a dizzying array of technology options. Most have a variety of digital and mobile platforms to use, such as laptops, digital music players, and cell phones. In addition, the digital divide has all but disappeared, with little difference in technology usage based on socio-economic status or race and ethnicity (Figure 4).

Mobility is paramount for these young users, and ownership reflects that. In the ISIS/thinktank survey, ownership of a laptop (67%) is higher than that of a PC (50%). A combined 93% of respondents own either a cell phone or smartphone, with 26% owning a smartphone such as an iPhone or an Android.

In the focus groups with urban youth, many had regular access to the Internet at home or on a mobile phone, but only a few had smartphones with applications and advanced features. However, youth of color are utilizing the advanced functions on their entry level phones (“dumb” phones) such as web surfing, video viewing, and gaming, while other American teens are more likely to trade up for the newest gadgets.<sup>8</sup>

Figure 4: Technology Platforms Owned



## Technology Usage by Youth

According to a recent Kaiser Family Foundation Study,<sup>9</sup> today's youth aged 8 to 18 cram almost 11 hours of screen time into a day, plus an additional hour and half of texting and talking via mobile phone.

Daily media usage includes:

TV (4.5 hours)	movies (.4 hours)
music (2.5 hours)	print (.4 hours)
computer (1.5 hours)	texting/talking via mobile phone (1.5 hours)

Much of this is done as multi-tasking, as many young users manage to watch TV, text on their mobile phones, and communicate via chat or Instant Messenger on their computers at the same time.

More than 60% of ISIS/thinktank survey respondents are listening to music, chatting or IMing, visiting a social network, watching online video, or playing video games on a weekly basis. When the data was cross-tabulated by gender, in answer to this question, men were more likely to play video games (64%) than women, though women were more likely to visit social networks (71%), and chat (76%) (Figure 5).

## Social Networks

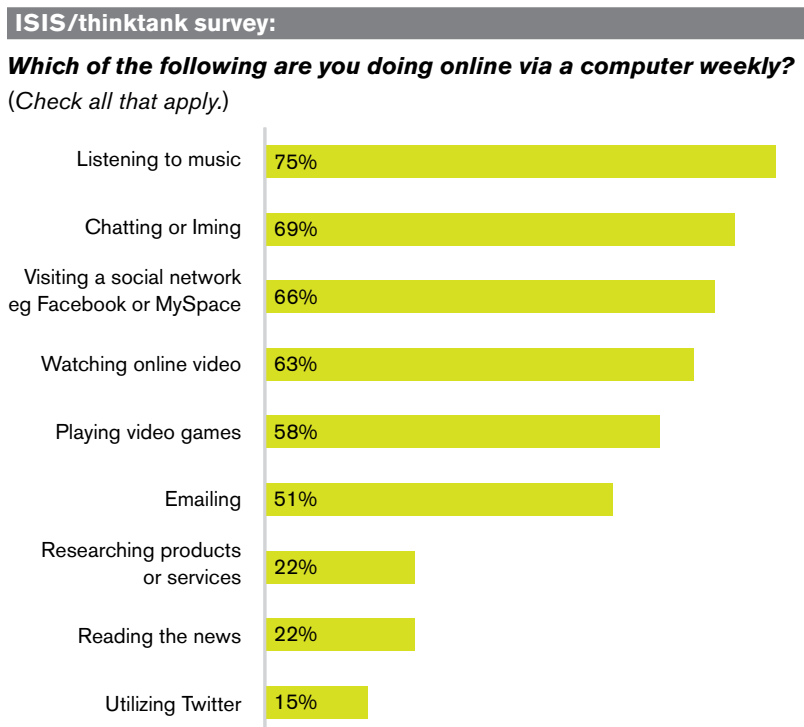
Social networks have become an integral part of youth's lives. In the ISIS/thinktank survey, two-thirds of survey respondents note that they are utilizing social networks. The consensus among professionals and focus group respondents is that Facebook has become the key social network, eclipsing MySpace, LinkedIn, Bebo, Hi5 and other popular social networks. Teens from lower-income families (a family income of less than \$30,000 annually) are more likely to use online

social networks than teens from wealthier households, with more than 80% of teens from less well-off households using social networks.<sup>10</sup>

An analysis of both computer usage and social network usage uncovers an interesting phenomenon. Those who are using social networks are more likely to utilize those platforms for most of their online activities such as chatting, emailing, and reading the news.

For example, among social networking users, 81% chat within a social network compared to 69% of computer users, 53% email within a social network vs. 51% of computer users and 32% read content or news online within a social network vs. 22% of computer users (Figure 6).

Figure 5: Online Activities Via a Computer



## Facebook

The previous data suggests that Facebook, as the preferred social networking tool for most respondents, has become a microcosm of the Internet, with certain activities more appealing within its confined walls. One example of this behavior is the runaway success of social games such as Zynga’s CityVille, Farmville, and Mafia Wars and PopCaps’ Bejeweled Blitz and Rovio’s Angry Birds. Many of these games, such as CityVille and Farmville, are variants of life simulation games like The Sims, where players build towns, farms, and cities. They are hugely popular. In February 2011, about 100 million consumers played CityVille.<sup>11</sup>

While most youth and young adults in the survey and focus groups use Facebook, many focus group respondents reported having mixed feelings about the service. Many felt that the information shared on Facebook by others was too personal and that things like status updates often caused “drama”. A few noted how Facebook could incite issues and fights, especially with the creation of “burn” pages—pages created for the specific purpose of taunting and teasing others.

While the youth and at least one expert primarily saw Facebook as a means to pursue personal relationships, rather than as a place to learn about issues related to their sexual health, many health professionals are developing or managing social network presences to engage youth online in current, topical conversations. Some professionals interviewed noted the demands on staff time needed to develop an appropriate youth-friendly tone within these mediums and the difficulties of responding to youth comments and questions in a timely manner.

Researchers are also beginning to use social networks to understand risk-taking relationships and behaviors within online social networks, as well as for HIV prevention activities. For example, interviewee Dr. Sheana Bull, at the University of Colorado School of Public Health, and the co-authors of this paper, ISIS, Inc., are analyzing data from the first clinical trial in the US (N=3,000) using Facebook and a companion website to prevent HIV and promote sexual health among youth of color.<sup>12</sup>

## Mobile Phone Usage

Mobile phone usage is also on the rise. While texting (69%), talking (61%), and taking photos (56%) are the most popular features used by youth, about a third of respondents are using advanced features such as mobile social networks (37%), surfing the Internet (37%), playing games (36%), and watching videos (31%). As such, it appears that social networks and mobile platforms are becoming more important platforms for young users (Figure 7).

Interestingly, advanced services such as mobile maps and location-based services have low usage among youth. When questioned in the focus groups, youth simply said they weren’t interested in these types of services and features.

### ISIS/thinktank survey:

**Which of the following activities do you do weekly on a social network?** (Check all that apply.)

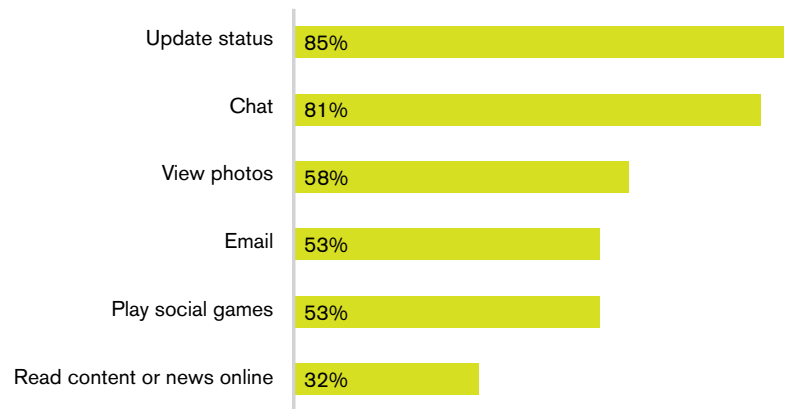


Figure 6: Weekly Online Social Network Activities

## Twitter

As evidenced by the study, most youth are not utilizing Twitter, even via the Internet. When asked in the focus groups why they were not using it, many cited the lack of depth in the service as compared to Facebook. Additionally, many felt the service was better utilized by celebrities and brands for marketing products (Figure 7).

In the stakeholder interviews, some professionals noted that the feedback they gleaned by actively listening in on Twitter conversations afforded them better monitoring of the overall media landscape. Because of this, experts saw Twitter as another positive channel for their own learning about how to use social media for sexual and reproductive health.

*“Social media has allowed us to become better listeners.”*

*“We use social media to respond to the chatter online.”*

## Video Game Usage by Youth

Video games have gone mainstream, with over half of all Americans playing some type of video game weekly.<sup>13</sup> According to the Kaiser Family Foundation study, for every 17 minutes a youth spends playing online games, 1.25 hours are spent using video games on other platforms.<sup>14</sup>

Ownership of handheld game players is high (67% of 12 to 14 year olds and 44% of 15 to 17 year olds) (Figure 8). According to the Kaiser Family Foundation study, ownership is unvarying by household income or race/ethnicity. Consoles such as the Xbox 360, Wii, and PlayStation 3 are very popular among youth, especially young men. Many enjoy playing shooting games such as Halo or Call of Duty on their Xbox 360s, which are typically violent, rather than sexually themed games.

Women are more likely to want to play games on the Wii, or play casual or social games online and within online social networking sites, such as the aforementioned Farmville, CityVille or Bejeweled Blitz.<sup>15</sup>

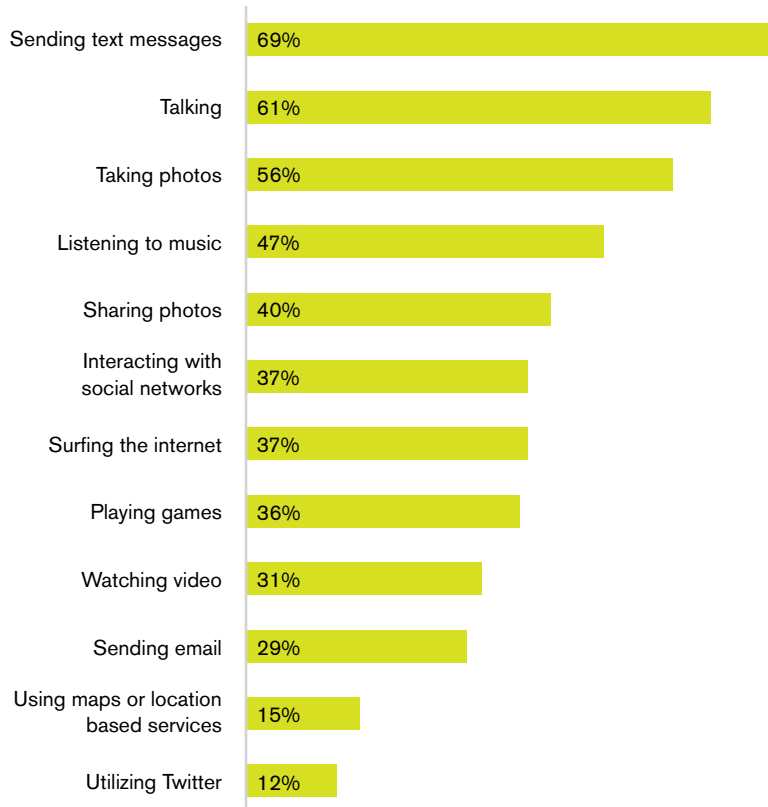
Mobile phones are also big gaming platforms, with the iPad and iPhone supporting hundreds of games through their application store. Among our youth population surveyed, 20% were gaming via their “dumb” or entry level cell phones and 19% via smartphones. The potential for creating applications to teach and engage around sexual health is still about

Figure 7: Weekly Activities on Mobile Phone

### ISIS/thinktank survey:

#### Which of the following do you do weekly on your mobile phone?

(Check all that apply.)



four to five years out, although casual games accessed through “dumb” phones is an area of consistent and continued growth.

### Shifts in the Media Landscape

Ownership and usage shifts are rapidly evolving within the media landscape. For example, MySpace was launched in 2003 and Facebook in 2004. As recently as spring 2009, MySpace had more unique visitors than Facebook. Today, almost two years later, Facebook is the dominant social network with 600 million unique visitors worldwide. It is estimated that the number of total Facebook page visits will exceed that of Google by 2012.<sup>16</sup>

During the stakeholder interviews, many health care experts noted that these rapid shifts make it difficult to keep up with youth communication trends. For example, a few years ago, email was still seen as an effective communication tool, but it has been largely eclipsed by Facebook chatting, IMs, and texting. Some experts talked about the need to tailor sex education communications to new technologies. As one noted:

*“First we were a newsletter, then a magazine, and then we went online. We’re figuring out what’s next!”*

In the interviews, many foundation program officers were open to leveraging new technologies, although the Web was often still seen as the main focus in regards to digital outreach, as opposed to social media and mobile platforms.

The growing digital landscape offers a beacon of hope, as new technologies, such as social media and mobile platforms, combined with in-person support and clinical services, provide opportunities for greater reach, access, and interactivity with vulnerable, underserved youth.

While many professionals highlighted the growing importance of the multimedia mobile platform, especially as smartphone costs come down and adoption proliferates, most agencies are focusing on simple services such as texting to reach the widest possible audience. Cutting-edge agencies are looking ahead to plan for the inevitable change in the technology landscape. As one stakeholder asserted:

*“If you place your bets on mobile and social, you can’t go wrong.”*

### ISIS/twitter survey:

**Which of the following platforms do you play games on weekly?**  
(Check all that apply.)

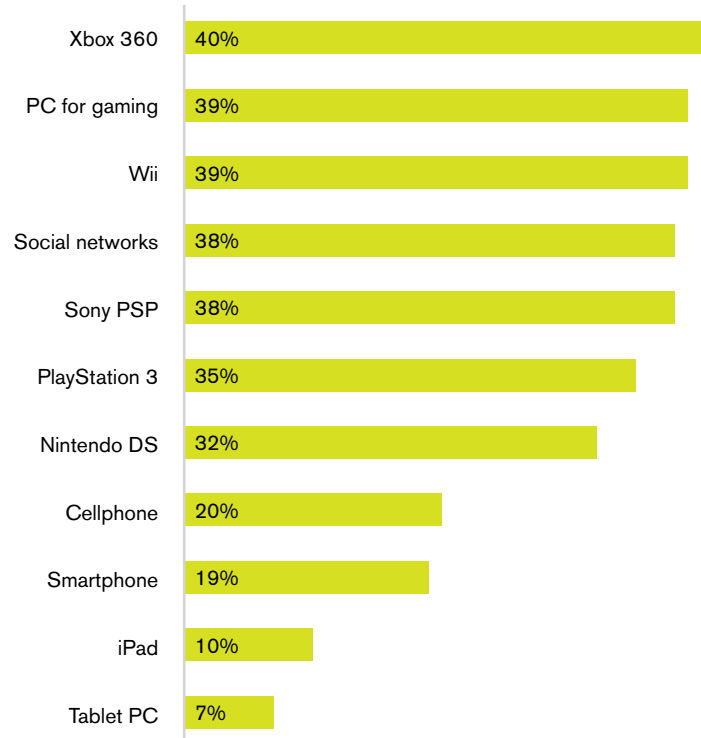


Figure 8: Gaming Platforms Used Weekly

## DIGITAL LANDSCAPE AND HEALTH

As indicated in the focus groups and the ISIS/thinktank survey (Figure 9), friends and family, schools, health professionals, and the Internet are some of the most popular sources that youth and young adults use to learn about sexual and reproductive health.

Most respondents utilize online search or a school clinic to learn about birth control and talk to friends rather than to family members about STIs, suggesting that there is still a stigma around talking face-to-face about STIs. Young people are also still learning from traditional media, with about 70% of survey respondents noting they have learned something about these four topics (birth control, menstruation, pregnancy, and sexually transmitted diseases) from TV, and 50% noting magazines.

Usage of other media such as social networks, online video, newspapers, cell phone applications, Twitter mobile phone, and video games is relatively low, with less than 40% of respondents noting that they have learned something about the four topics from these sources (Figure 9).

### Online Searching for Information

In the focus groups with urban youth of color, online search was often cited as the first thing that respondents did when they had questions about sex.

*“First thing, I Google.”*

While most would use Google, other search engines included Bing, Yahoo!, and Ask.com. Respondents used online search to answer a variety of questions, such as the following:

*“How do you get rid of a hickey?”*

*“How do you know if you’re pregnant?”*

*“What are the signs of herpes?”*

### Mobile Technologies for Information

For the most part, focus group respondents were not using mobile technologies as they related to sexual health, and few had smartphones that would support mobile-based applications. However, one female focus group respondent had an application on her iPhone that predicted and

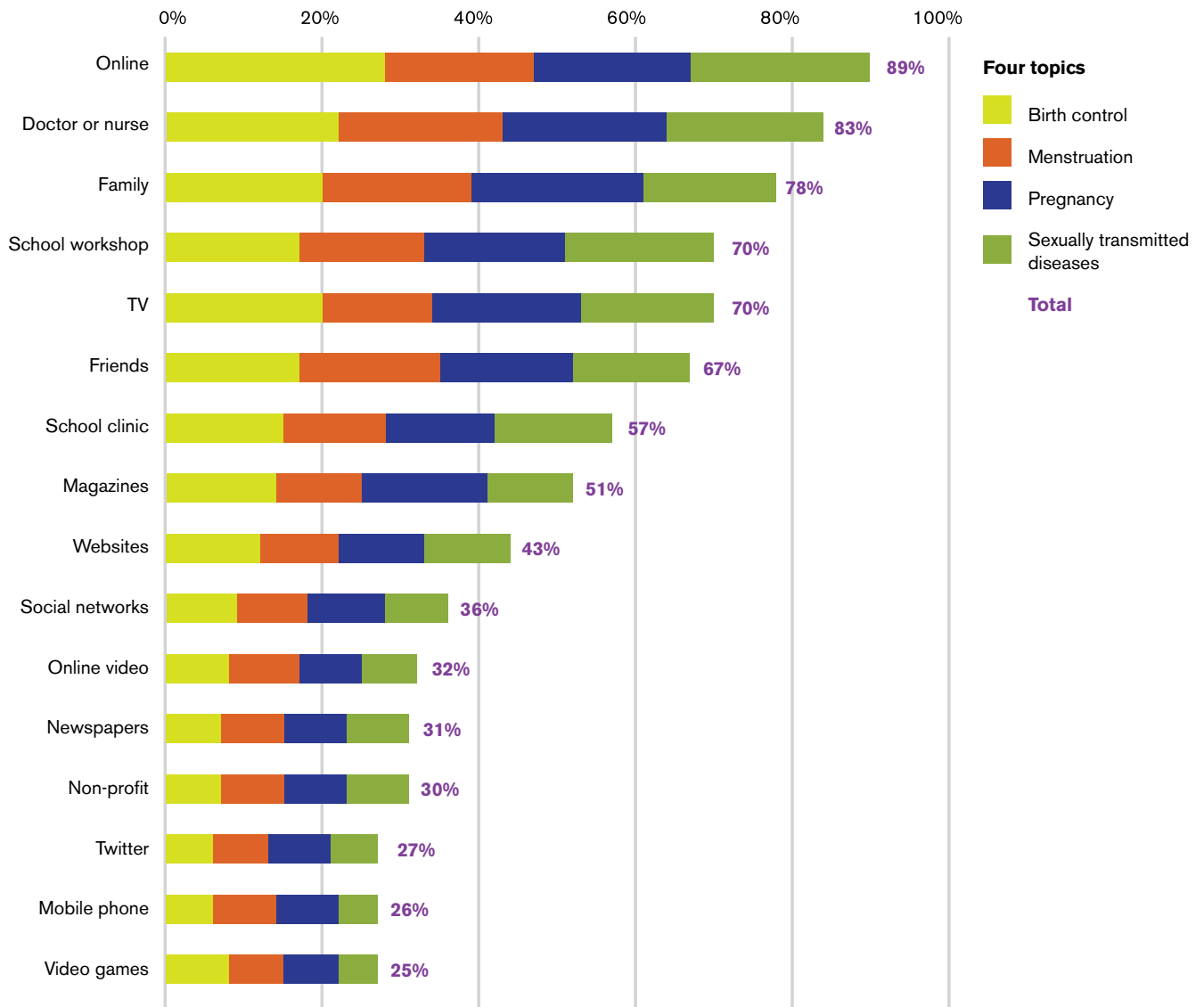
tracked her menstrual cycle. When discussed with the other focus group respondents, they were moderately interested in such an application. A male participant had an application that showed various sexual positions, which quickly became popular with the other men in the group. When exploring the topic further, most youth said receiving a birth control or appointment reminder via a text message would be acceptable to them.

### Triangulation of Information

As noted previously, youth are using a variety of sources to help solve their questions and problems in terms of their sexual and reproductive health. In many instances, the Internet provided the first step to solving a problem. For example, a focus group respondent recounted

**ISIS/thinktank survey:**  
**How do you learn about each of the following topics? (Check all that apply.)**

Figure 9: Avenues for Learning



that a friend had suspicious bumps around her lips. She and her friends went online to look at photos to see if her friend's bumps resembled herpes. From there, her friend decided to go to the doctor and was subsequently treated.

### **TV as a Source of Information**

Many respondents cited the impact that TV had on educating them about sex and reproductive health. In particular, many cited two shows, *16 and Pregnant* and *Teen Mom*, as positive influences, though a few older respondents felt that it glorified teen pregnancy by showing how you could become a reality star.

Many found *16 and Pregnant* and *Teen Mom* to be realistic depictions of teenage parenthood, highlighting the financial, emotional, and physical difficulties the moms (and to a lesser extent, the dads) experienced. Most found the daily lives of the teen moms “depressing” and “stupid”, suggesting that these shows were a good way to discourage teen pregnancy.

Other shows named by respondents as examples of television that gave them information about sex, included talk shows such as *Jerry Springer* and *Maury* and more health-related shows such as *The Doctors*, *Maternity Ward*, experts such as Dr. Oz and Dr. Sue, and various shows on The Learning Channel (TLC), HBO, and BET.

### **Online Video as a Source of Information**

Online video was an area briefly mentioned by respondents. Some respondents noted seeing videos or images about sex on YouTube, despite the fact that YouTube community guidelines clearly state that “YouTube is not for pornography or sexually explicit content.” Many were repulsed or scared by the graphic nature of the materials they found.

### **Video Games for Sex Education**

While no focus group respondents mentioned playing educational video games, experts did note that a few good “edutainment” examples exist, such as The National Campaign’s “The Paper Boyfriend,” which taught women how to be a good girlfriend through a series of scenarios.

Of related note to gaming is the serious games movement, which has gained traction in the last five years. In particular, these programs highlight how edutainment or gamification efforts such as rewards and achievements can increase the efficacy of education and health-related efforts. A few experts noted the potential in serious games or games for good, but noted that the tone, in particular for youth of color, needs to be youth-centered, culturally appropriate, and the game play compelling.

### **Sexual Images and Lyrics in Music**

Many focus group respondents noted the prevalence of sex in music, specifically rap and hip-hop. Artists noted included Chris Brown, R. Leey and Nicki Minaj. Women were often perturbed by the images and lyrics within this music.

## Radio as a Source of Information

Radio was rarely mentioned in the focus groups, though in one group, female respondents noted the popularity of Steve Harvey as a way to learn about sex and relationships.

## Magazines as a Source of Information

Female focus group respondents said they also learned about sex and relationships from traditional teenage, women, and fitness magazines such as *Seventeen*, *Cosmopolitan*, *Women's Health* and *Shape*.

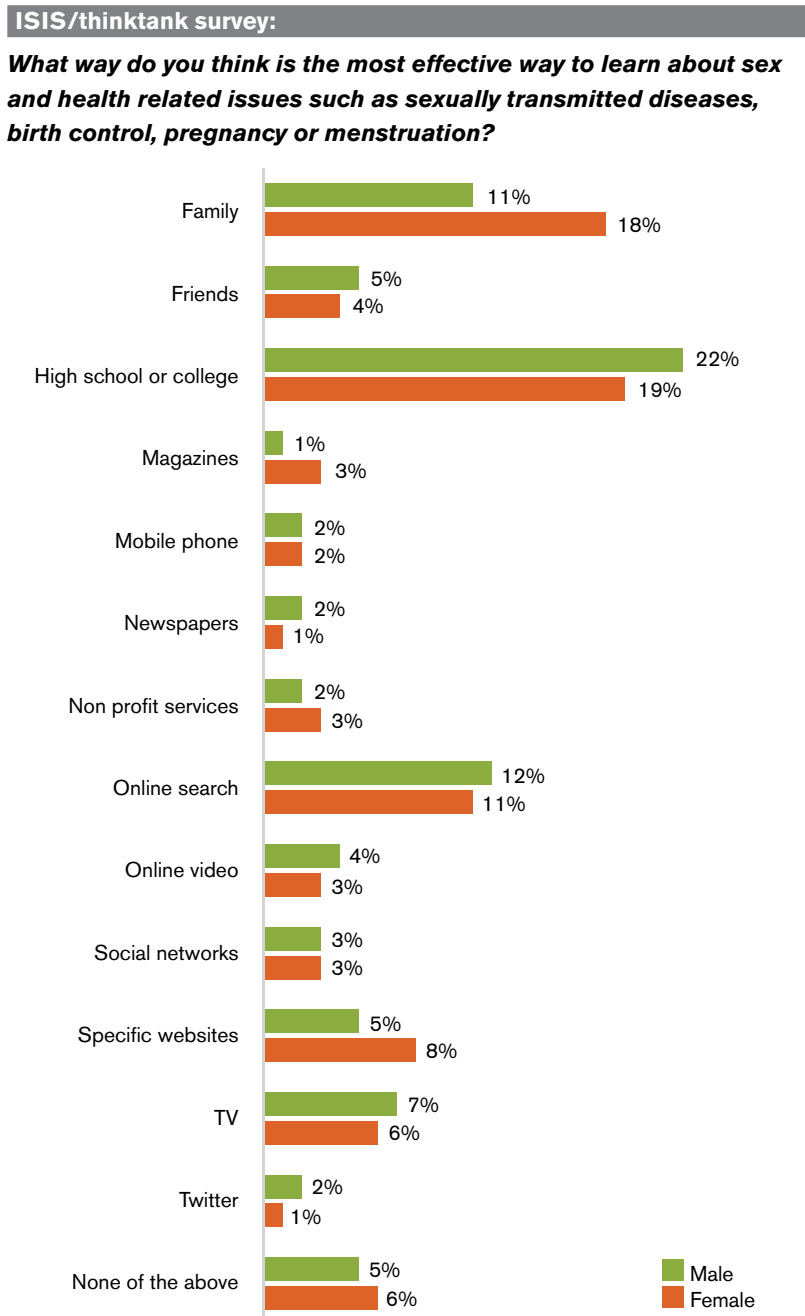
## Newspapers as a Source of Information

Very few focus groups respondents were reading newspapers in general, so newspapers were rarely used for information about sex and reproductive issues.

## Most Effective Ways to Learn about Sex

In the online survey, when asked for the best way to learn about sexual and reproductive health, about 20% of survey respondents cited high school or college programs. Eighteen percent of women mentioned family as a source, compared to 11% of men. Approximately 12% noted online searching (even though 45% had searched for health information online) (Figure 10). These findings were reiterated in the focus groups, with participants agreeing that all of these ways of learning were only moderately successful in educating youth about sexual and reproductive health.

Figure 10: Most Effective Ways to Learn About Sex



# SERVICE, WEBSITE AND PROGRAM AWARENESS AND USAGE

## Youth and Young Adult Perspective

In the focus groups, awareness of various online educational programs was very low. Most respondents in the groups had not heard of the following programs:

- Scarleteen
- Sex Really
- Stay Teen
- Midwest Teen Sex Show

However, awareness for PlannedParenthood.org was high, especially among young women, although some young men thought Planned Parenthood was the place you go when you “knocked up” your girl and needed advice on how to be a parent.

The above findings were also reiterated in the survey. Awareness of most programs was low, with Sex, etc. (30%), Planned Parenthood (29%), and Go Ask Alice (18%) highest.

In an open-ended question in the survey, respondents were also asked “Can you describe a service, site, or program that effectively answered your questions or provided help around sex and health issues, such as sexually transmitted

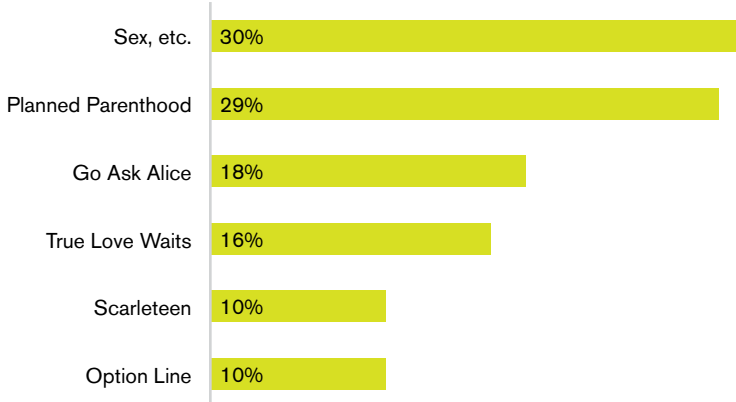
diseases, pregnancy, or menstruation?” Most of the open-ended responses indicated online search as the main method for answering sex questions. Google was mentioned most frequently, while other popular sites included About.com, Answers.com, Ask.com, Baby-Gaga.com, Bing, Craigslist, Facebook, Health.com, Itsyoursexlife.com, WebMD.com, Yahoo!, Yahoo! Answers, and YouTube.

When asked how they heard about specific sites, most said they heard through a friend, doctor, parent, or Google search.

Figure 11: Online Sites Visited

**ISIS/thinktank survey:**

**Which of the following online sites have you visited to learn about sex and health related issues, such as sexually transmitted diseases, birth control, pregnancy, or menstruation?**



When asked, “Do you know who provides the content for this service, site, or program? (ie, peer, doctor, organization, company, etc?);” most were unsure, citing a doctor, company, or not-for-profit.

Experts in the stakeholder interviews also noted that in some instances the funders or founders of a site were not made apparent. As one noted:

*“There’s a lot of misinformation out there, without citations, a lot of mistakes.”*

As one focus group respondent noted:

*“You never know who’s behind the Internet.”*

In general, survey and focus group respondents were still left looking for unbiased, accurate answers to their questions about sex.

### **Professional Perspective**

Given the early stages of these efforts, examples of technology based intervention and education programs are limited. As per a recent RAND working paper,<sup>17</sup> less than a dozen clinical trials have been completed with published results in peer-reviewed journals.

In the stakeholder interviews conducted by ISIS, Inc./thinktank research and strategy, many professionals highlighted Planned Parenthood’s pilot texting program as successful, although some felt the program was better used for making appointments at its affiliates than for dialogue between youth and adults. This program has not yet been rolled out to a national audience, nor tested within vulnerable populations or communities of color.

Other professionals liked Bedsider.com, which is a full-service digital platform (Web, social network and mobile) about contraception geared to women aged 18 to 35. Bedsider has clinic appointments and birth control and contraception reminders sent via text message. Bedsider is still in Beta, set to launch nationwide in June 2011.

In addition to the two national programs mentioned above, professionals noted the proliferation of smaller Internet, social media, and mobile pilots across the country, such as Milwaukee’s Campaign against Teen Pregnancy, Stay Teen’s Paper Boyfriend, RealTalkDC, SexINFO, and Hookup. Hundreds of other local pilots focusing on sex education and sexual and reproductive health are currently operated in the United States by local and state health departments and small not-for-profit organizations. Unfortunately, few of these programs have evaluation measures in place, nor plans for scale, and replication. Professionals are still using the worldwide medium of the Internet to reach small groups of local youth, but they have not yet fully leveraged it or assessed its impact on sexual risk-taking or health promotion behaviors.

In the aforementioned RAND working paper, two SMS mobile programs have been successful in their efforts: BART (adaptation of Becoming a Responsible Adult), a program supplementing an existing HIV education program in the Washington, DC area; and SEXINFO, an ISIS program in the San Francisco Bay Area that provides sexual health information and referrals.

A qualitative analysis of BART showed that participants were enthusiastic about using text messages. In regards to SEXINFO, the messaging service received 4,500 texts in its first 25 weeks of service. Surveys of two convenience samples of youth suggested that it reached the target demographic of African American youth in low-income neighborhoods.<sup>18</sup>

## TEN CONCEPTS TESTED

Ten technology-based concepts were tested in the ISIS Inc./thinktank research and strategy online survey and focus groups:

1. *How interested would you be in a mobile text messaging daily reminder for you (or your partner) to take your birth control pill?*
2. *How interested would you be in a mobile text messaging reminder for appointments for HIV testing or birth control updates (the shot, the ring, the patch, etc.)?*
3. *How interested would you be in a regular text messages to your phone with sex tips and life advice?*
4. *How interested would you be in texting with an adult about a sexual problem?*
5. *How interested would you be in downloading an application with info about local sexual health clinics and services (maps, costs, youth-friendly, etc.)?*
6. *How interested would you be in receiving sexual health pics and videos on your phone (how to use a condom, what to do if the condom breaks, etc.)?*
7. *How interested would you be in a website for your parents with info about young people's sexual health and communication?*
8. *How interested would you be in a page on an existing social networking site (Facebook, MySpace, Xanga, etc.) where you interact with peers and experts about sexual health and rights?*
9. *How interested would you be in a private social networking site to interact with peers and experts about sexual issues and problems?*
10. *How interested would you be in a simulation video game about your personal sex life?*

In general, the concepts were given moderate approval, with about a fifth of survey respondents (Figure 12) and approximately 20% to 50% of focus groups respondents interested in individual concepts.

The most popular concepts for the general youth population tended to be mobile-based applications, such as daily text reminders to take a birth control pill, a mobile text reminder

about an upcoming appointment, or an application that provides information about locating sexual health clinics or services. Less popular concepts included those that incorporated social networks.

### Concept Testing by Race/Ethnicity

The following three concepts were slightly more popular among youth of color in the survey (Figure 13). These trends in popularity found in the quantitative survey were further strengthened in the qualitative discussions during the Chicago and Oakland focus groups with youth of color. The top three concepts, in order of popularity, were:

1) *A simulation video game about your personal sex life.*

*“Oh, like the Sims. Maybe like I could figure out which lady I want to do in virtual before real.”*

2) *Regular text messages sent to your phone with sex tips and life advice.*

*“It would be great to hear from experts about things I care about; then I could delete it afterward.”*

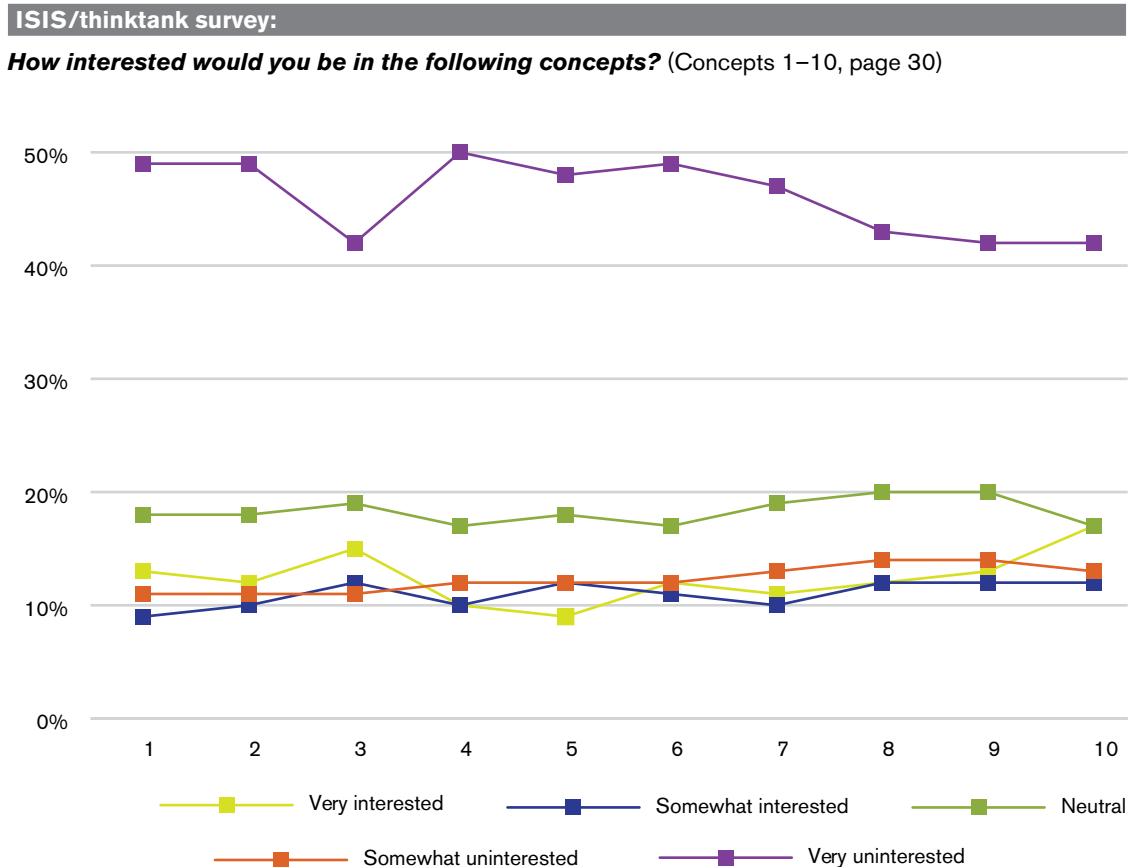


Figure 12: Interest in Ten Concepts

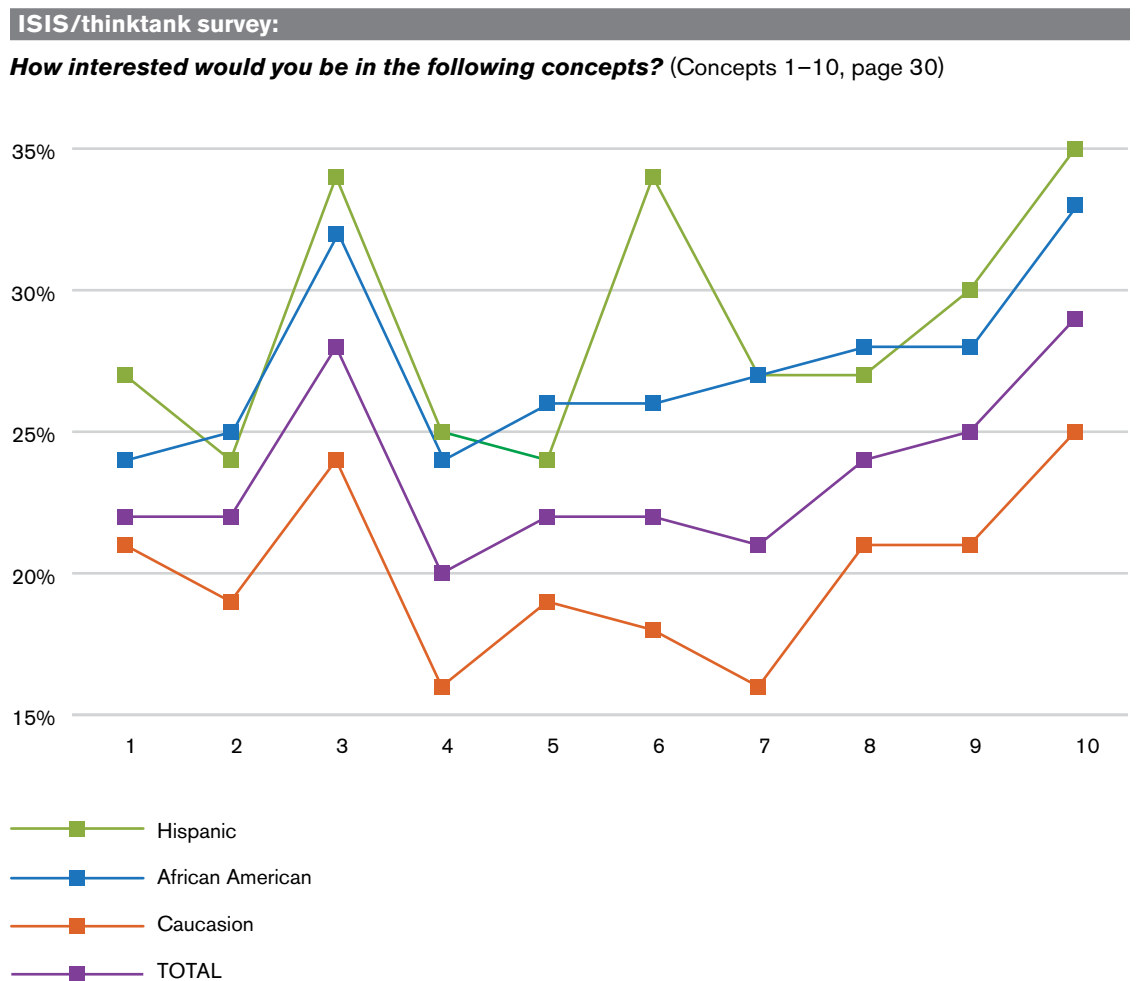
3) Receiving sexual health pics and videos on your phone (how to use a condom, what to do if the condom breaks, etc.

*“It would be cool if you could get the pics when you wanted them, like right when it would make a difference if the condom went on wrong.”*

The simulation video game was particularly interesting to the oldest young men of color, aged 21–24. The two least popular concepts with all youth of color in the survey and the focus groups were texting back and forth with an adult about their sex questions, and the private social network to interact with peers and experts about sexual issues and problems.

*“Creepy”*

Figure 13: Responses by Race and Ethnicity to Ten Concepts



## GENERAL IMPROVEMENTS AND OPPORTUNITIES

### Professional Opinions of Programs and Services

Many of the professional stakeholders we interviewed highlighted the challenges of communicating and educating in the current media landscape. Budgets are small, staff knowledge is under par, and lack of appropriate evaluative methodologies curtailed the opportunity to develop test cases for replication and expansion.

Additionally, given the rapid shifts in platforms and communication styles, health professionals recognized the need to be more flexible in adjusting their workload, budgets and timelines.

Many of those health professionals accurately described the current online environment as one dominated by search and wished for a more contextual, fluid landscape utilizing information and insights from youth and experts to provide more complete, intergenerational learning. This is very reflective of pundits' prediction of Web 3.0—a more mobile online environment, with better incorporation of online, mobile, and social technologies.<sup>19</sup>

Most of the professionals cited mobile platforms and social media as burgeoning opportunities. Some of the professionals looked to emerging regions, such as Africa, for solutions, especially around mobile platforms. The rest of the world is far more advanced in creating mobile solutions to reach youth around critical health topics.<sup>20</sup>

Many of the stakeholders we interviewed noted the lack of baseline data for measurement, or even agreement on which values to collect to measure success. Possible measurements included increased access to services, youth engagement, number of friends on social networking sites, and number of text messages sent and received. Currently, most of the online programs they are involved in are not collecting demographic data on their digital users, so it is impossible to tell if they are reaching the most marginalized youth and those most at-risk for negative health outcomes. According to the ISIS, Inc./thinktank research and strategy survey and focus groups, the current use of “siloes” websites for sex education (such as Sex, Etc., Scarleteen, etc.) are not reaching the most vulnerable youth in US urban centers.

The stakeholders were interested in collaborating with other professionals (researchers, funders, and interventionists) working in the field in a meaningful way to share successes, failures, and opportunities on an ongoing basis.

When asked which solutions in the best of all possible worlds they would want to improve the situation of youth as regards to sexual and reproductive health, most stakeholders noted that a multi-pronged, inclusive approach is necessary, utilizing multiple platforms and various outreach mechanisms, including traditional media, in-person contact, mobile, and social media.

### **Youth and Young Adult Perspective**

Within the focus groups, most youth recognized the negative affect teen pregnancy and STIs can have on their lives and their futures and the need for greater education and services.

When asked to provide suggestions that would improve existing programs, many want more programs that continue to spread the word in their communities, as well as greater access to health services, testing and condoms.

They also want programs that talk to youth and young adults in a manner they can relate to.

*“Be friendly, but serious.”*

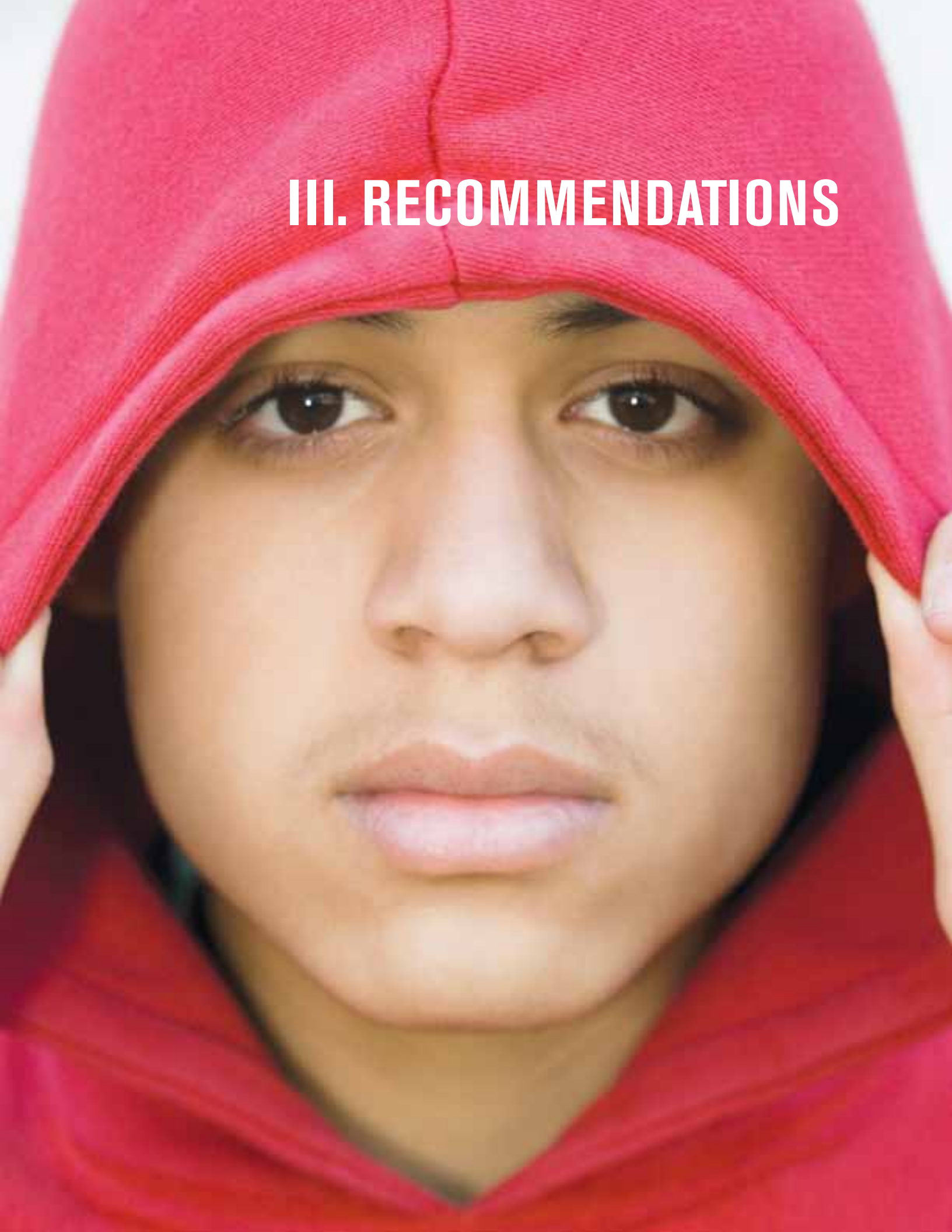
Men also had suggestions in regards to incorporating musicians or sports heroes in public service announcements and sexual health campaigns.

In regards to specific digital technologies, they did not understand the use of technology for their sexual health in the same way that professionals did.

*“I don’t use technology to find information about sex.  
I just Google it and sh\*t.”*

Many wanted more accurate information online and via their mobile phones. Some suggested more resources and links to doctors and free and low-cost clinics on Facebook pages.

### **III. RECOMMENDATIONS**



### III. RECOMMENDATIONS

The following recommendations are based on a cumulative analysis of the data collected from the interviews, national survey, and focus groups during the course of this white paper development. Consideration is given to the real world problems that arise in sexual health education based on the authors' years of experience in the field.

#### COMMUNICATION STYLE

##### Observation

1. Youth are actively searching for accurate, helpful and in-depth information about sex and sexual health.
2. Youth want to be spoken to respectfully in a manner to which they can relate.
3. When it comes to talking about sex, *trust* and *stupid* are key words. Youth want information and people they can trust. They also know that actions such as not using a condom or getting pregnant are "stupid".

##### Recommendation

- Consider ways information provided online could be verified for accuracy or lack of bias (eg, a Yelp or "Like/Dislike" model).
- Ensure that the tone of the online communications resonates with youth. It should be forthright, intelligent, and with a touch of humor. (This is particularly important for urban youth, who often suggested instruction or counseling in the language and style of urban youth culture.)
- Utilize the words *trust* and *stupid* in communications about sex to youth online.

#### DISCRETION AND PRIVACY

##### Observation

1. Youth and young adults want discretion and privacy in online communications about sex, preferring programs and services that do not leave digital trails.
2. Many focus group respondents were concerned about getting random text, images, or videos on their phones without their consent.

##### Recommendation

- Develop programs that allow users to protect their privacy (eg, text messaging programs with code words, "self-destructing" messages, etc.).
- Think push, not pull. Consider programs that push content per users' requests only. (This is consistent with focus groups conducted by ISIS, Inc. in 2005 for the SexINFO program).

## PLATFORMS

### Observation

### Recommendation

- |                                                                                                                                             |                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Recognize that Internet search (eg, Google) is often the starting point for research.                                                    | Make better use of search engine optimization (SEO) to improve search ranking and the promotion of sexual and reproductive health sites.                                                                                                                                             |
| 2. The Internet is one of many ways youth learn about sex.                                                                                  | New technologies compliment other forms of communication about sex. Do not abandon existing offline or online programs in favor of the next new thing.                                                                                                                               |
| 3. Recognize the power of pornography. Almost all youth have some contact with pornography in their formative years.                        | Leverage the “arousal” component of pornography to reach youth with sexual health information in a constructive manner. This is particularly important for male urban youth of color.                                                                                                |
| 4. The mobile phone is a ubiquitous platform for youth, with texting available on almost all phones as the lowest common denominator.       | Investigate ways other fields are using text messaging for health behavior change and learning. Consider context when text messages are sent together with tone and recommended actions when creating text message campaigns and services for youth.                                 |
| 5. Smartphones and apps are the wave of the future.                                                                                         | While it will probably be a few years before a majority of youth, including those with the lowest socioeconomic status, own smartphones, developing apps for an early adopter audience of youth of color will foster word-of-mouth distribution for when mainstream adoption begins. |
| 6. Despite their widespread popularity among youth, social networks are often awkward channels for sharing personal, sensitive information. | While their public nature makes them the wrong platform for private discourse and content, social networks can be utilized as supplemental channels for marketing, feedback, interaction, and dialogue.                                                                              |
| 7. Youth are doing what they used to do on the “open” Internet (eg, email, chat, IM, etc.) within closed networks such as Facebook.         | Consider switching primary communications with youth and youth leaders, including one-on-one private communications such as email, to services within “closed” social networking sites.                                                                                              |
| 8. Men are more likely than women to play games online or via consoles, watch online video, and download apps.                              | Investigate ways to incorporate learning for young adult men into these edutainment platforms.                                                                                                                                                                                       |
| 9. Twitter, Foursquare, and other emerging services are not universally used among youth currently.                                         | These types of services may not be good places to develop communications and education-based programs currently, but might be good listening channels or outlets to hear from early adopter youth and youth marketers outside the health field.                                      |

## CROSSPLATFORM

### Observation

1. Traditional media such as music and television still matter.
2. Youth are using multiple sources, often compiling information from friends and family, online, mobile, and health professionals.

### Recommendation

- Continue to partner with traditional media sources to promote new technologies (eg, celebrity messages on Twitter, advertising iPhone applications on TV).
- Develop multimedia programs that help connect some or all of these disparate sources of information and guidance for youth.

## EVALUATION AND FUNDING

### Observation

1. Currently, few digital programs for sexual and reproductive health are being rigorously evaluated.
2. Costs for mobile and social networking program development is not known, standardized, or shared.
3. The ability to duplicate and scale successful programs is a concern among professional stakeholders.

### Recommendation

- Develop baseline measures of success, then integrate standardized evaluation and research into all digital and new media programs.
- Consider creating public price estimates for various technological services such as text messaging, application development, etc.
- Consider creation of a platform to share successes and challenges among researchers and program staff nationwide; then standardize best practices within the field.



## IV. CONCLUSION

## IV. CONCLUSION

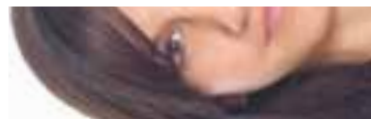
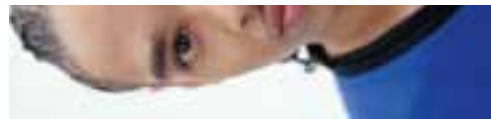
As digital technologies rapidly evolve, great opportunity exists for health care professionals to develop and leverage these new technologies to improve learning around sexual and reproductive health and change risk-taking behaviors and attitudes of youth and young adults, particularly youth of color.

Health professionals must recognize that in an increasingly public digital arena, youth and young adults are often reluctant to share sensitive and sexually related personal information. As such, programs that use the immense reach of the Internet and social networking to market services that discretely and privately support youth and young adults will be better received. In addition, an approach with full saturation of messaging via multimedia digital channels and reinforced by in-person communication with trusted adults has the most potential to reach youth where they are—with messages to which they can relate.

Research and evaluation are key to ensuring that digital programs reach their goals, by proving their effectiveness and scalability for greater reach. Professionals must be flexible within the ever-changing digital world, and budgets must support the greater range of technology-based sexual and reproductive health programs.

## ENDNOTES

- 1,2 Abma JC. *Teenagers in the United States: Sexual activity, Contraceptive use, and Childbearing, National Survey of Family Growth*; Centers for Disease Control and Prevention; 2006–2008.
- 3 Kost K, Henshaw S, Carlin L. *US Teenage Pregnancies, Births and Abortions: National and State Trends and Trends by Race and Ethnicity*. New York, NY: Guttmacher Institute; 2010.
- 4 Abma, JC. *Teenagers in the United States: Sexual activity, Contraceptive use, and Childbearing, National Survey of Family Growth*; Centers for Disease Control and Prevention; 2006–2008.
- 5 Weinstock H, Berman S, Cates W Jr. Sexually transmitted diseases among American youth: Incidence and prevalence estimates. *Perspect Sex Reprod Health*. 2000. 36(1):6–10.
- 6 Forhan SE, Gottlieb SL, Sternberg MR, et al. Prevalence of sexually transmitted infections among female adolescents aged 14 to 19 in the United States. *Pediatrics*. December 2009; 124(6):1505–1512.
- 7 Centers for Disease Control and Prevention. *HIV Prevention in the Third Decade*. Atlanta, GA: US Dept of Health and Human Services, Centers for Disease Control and Prevention; 2005.
- 8 Livingston G. *Latinos and Digital Technology 2010*. Pew Hispanic Center. Retrieved from <http://pewhispanic.org/reports/report.php?ReportID=134>
- 9 Rideout VJ, Foehr UG, Roberts DF. *Generation M2 Media in the lives of 8- to 18-year olds*. Menlo Park: Kaiser Family Foundation; January 2010.
- 10 Lenhart A, Purcell K, Smith A, Zickuhr K. *Social media & mobile internet use among teens and young adults*. Pew Institute; 2010. Pew Internet & American Life Project; February 2010.
- 11 All Facebook. Application Statistics: CityVille. Retrieved from <http://statistics.allfacebook.com/applications/single/cityville/291549705119/>
- 12 Bull SS, Breslin LT, Wright EE, Black SR, Levine D, Santelli JS. An Ethics Case Study of HIV Prevention Research on Facebook: The Just/Us Study. *Journal of Pediatric Psychology*. 2011. doi: 10.1093/jpepsy/jsq126.
- 13 Entertainment Software Association. Industry Facts 2010. Retrieved from <http://www.theesa.com/facts/index.asp>
- 14 Rideout VJ, Foehr UG, Roberts DF. *Generation M2 Media in the lives of 8- to 18-year olds*. Menlo Park: Kaiser Family Foundation; January 2010.
- 15 Information Solutions Group. PopCap 2010 Social Gaming Research. Retrieved from [http://www.infosolutionsgroup.com/2010\\_PopCap\\_Social\\_Gaming\\_Research\\_Results.pdf](http://www.infosolutionsgroup.com/2010_PopCap_Social_Gaming_Research_Results.pdf)
- 16 Alexa Internet Traffic Data 2010. Retrieved from <http://www.batteryer.com/blog/2010/08/facebook-unique-visitors-will-exceed-google-in-2012/>
- 17 Collins RL, Martino SC, Shaw R, *Influence of New Media on Adolescent Sexual Health: Evidence and Opportunities*, RAND Corporation; October 2010.
- 18 Levine D, McCright J, et al. SEXINFO: A sexual health text messaging service for San Francisco youth. *American Journal of Public Health*. March 2008; 98(3):393–395.
- 19 Wikipedia 2011. The Semantic Web. Retrieved from [http://en.wikipedia.org/wiki/Semantic\\_Web](http://en.wikipedia.org/wiki/Semantic_Web)
- 20 Mechal P. 2009. The Case for mHealth in Developing Countries. *Innovations: Technology, Governance, Globalization*. 4(1): 103–118.



Scan the QR code to get a link to download a free PDF copy of this white paper. [www.isis-inc.org/techsex\\_usa.php](http://www.isis-inc.org/techsex_usa.php)