Technology and community engagement for health

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Why Community Engagement?

- Community engagement as a community-based or driven empowerment model is seen as more effective than top-down approaches.
- Multi-level sociological interventions with empirically tested, theoretically framed programs have been shown more effective.
- Community-engaged approaches strengthen implementation and dissemination science.

Wallerstein et al., 2011. Integration of Social Epidemiology and Community-Engaged Interventions to Improve Health Equity. Am J Public Health 101:822-830
Why Technology

- Reach—can *potentially* reach many more people with technology than through face to face programs
  - Are they the “right” people?
  - Can we keep them?

- Potential for impact
  - While likely smaller effects, they reach more people
  - Population effects and therefore impact has potential to be greater

- Timing—once we reach people, we can do so at times of the day and days of the week that either are *more convenient*, and/or *more relevant* or ideal for sending a message
Why Technology

- Standardization—the message or program is delivered in the same way each time
- Easy to adapt or change—can use effective content but alter the spokesperson or setting
- Scalability—if we know a technology based program works, it is potentially easy to replicate and disseminate widely in different settings
Objectives for Session

- Consider use patterns of technology across diverse communities globally
- Consider examples of success using cell phone and social media for health promotion
- Generate ideas for using cell and social media to address global health concerns
The focus of this session

- Using technology to engage with communities and populations for health promotion (primary and secondary prevention) rather than:
  - Surveillance—using computers and electronic systems, handheld devices, etc. to gather data on health and health outcomes
  - Systems—electronic medical records and sharing data across systems for providing care
  - Technological advances in biomedical care—e.g. nanotechnologies, robotics
  - Training health care providers to use technology in care delivery
The use of cell phones worldwide

- Mobile phone technology is the predominant mode of communication worldwide.
- The average number of cell phones used per 100 people in Asia, Africa, and Latin America and the Caribbean (LAC) increased between 100% and 400% in the first five years of the 21st Century.

Rashid, A.T., & Elder, L. 2009. MOBILE PHONES AND DEVELOPMENT: AN ANALYSIS OF IDRC-SUPPORTED PROJECTS. The Electronic Journal on Information Systems in Developing Countries. 36(2)1-16
Rise of Online Social Networks

- 75% of young adults ages 18-24 use one or more social networking sites

(Pew Internet & American Life Project, 2009)
What works for cell phone interventions?

- Do you smoke after Txt?
  - Randomized controlled trial of smoking cessation program delivered via cell phone to persons ready to quit
  - Messages delivered 5X daily in days prior to quit date; could be up to hourly in the first two weeks of quitting, then tapering off
  - Higher quit rates in intervention (28%) vs. controls at six weeks (13%)

Rodgers et al., Do u smoke after txt?
Results of a randomised trial of smoking cessation using mobile phone text messaging.
What works for cell phone interventions?

- HIV Adherence project
  - 538 HIV Patients in Kenya
  - 62% adherent in intervention vs. 50% in controls at 5 months
  - 58% in intervention group had reduced viral load vs. 48% controls

Lester et al., The HAART cell phone adherence trial (WelTel Kenya1): a randomized controlled trial protocol. Trials. 2009 Sep 22;10:87.
What works for cell phone interventions?

- A review of 14 pilot studies show positive short term behavioral outcomes in smoking cessation, increased physical activity, diabetes and asthma self-management.

- A review of 25 studies show voice & text messaging programs linked with declines in HbA1c and cholesterol.


How does it work?

1. Mobile phone users in Africa can participate in text message quizzes and win prizes in interactive education and development programs.

2. Text to Change challenges participants by sending multiple choice questions. The TTC services are FREE OF CHARGE.

3. Participants answer the question.

4. WINNERS can receive mobile phone credit, t-shirts, mobile phones or health products.

5. During the program Text to Change encourages people to visit the facilities of our partner organizations, for example a clinic or test centre.

6. Measurable results: TTC creates an uptake in people visiting the facilities of our partner organizations and increases the knowledge level of participants.
What works for cell phone interventions?

- Text To Change:
  - 15,000 users of Zain, a mobile phone provider in Uganda were invited to participate; 16% agreed (2400). Testing for HIV during the campaign increased by 100% in those test sites that were monitored (note: this was not an RCT)

Social Networks and Social Media
Just/Us

- Just/Us: Online social networking for HIV prevention (NINR R01NR010492)
  - To explore, identify and compare strategies for recruitment and enrollment of *networks* of online social networking users.
  - To explore, identify and compare strategies for engagement of social networking users with sexual health content online.
Just/Us

- Just/Us: Online social networking for HIV prevention (NINR R01NR010492)
  - To determine the efficacy of exposure to Just/Us on HIV related risk behaviors for individuals
  - To determine the efficacy of exposure to Just/Us on HIV related risk behaviors within networks
Condoms, Cuz We Say So!

Wednesday, July 7, 2010 at 10:38am

They say that guys are always on the hunt for sex. But we gotta ask: Does the hunt always include protection and contraception? If sex is on the brain, then condoms should be as well. Condoms not only protect against most STDs and HIV, but prevent unplanned pregnancies.

People come up with all kinds of excuses for not wearing them: They can't feel anything; they're too expensive; they're too small. All of those excuses are just that, excuses! If you are sexually active, no sex without latex can be your theme.

If your partner dislikes condoms because they think they're not effective, drop some truth on their ass. If someone starts talking madness about comfort or size being the reason they can't wear one, suggest a different brand. Here's a Consumer Reports article on 7 Perfect Condoms.

If they say they don't want to wear one because they can't feel anything, show them the brands that are super thin or made for extra pleasure. If they say it's all good because a girl is on the pill, tell them sex is much better when you don't have to worry about unplanned pregnancy or contracting an STD (since the pill does not protect against STDs and HIV).

At the end of the day, your partner should know you can't enjoy sex without protection. You must stand your ground and be firm in your love for the glove. Click here for 10 good reasons to use condoms from Scarlettee.

TIP! Condoms are essential when embarking on new sexual adventures, and it's important that your partner knows how to properly put one on. Using one looks easy but in reality there are lots of tips and tricks to making sure they're used properly and do what they're supposed to do. If you need a visual guide, check out these instructions on how to put one on: thefrisky.com/post/how-to-put-a-condom-on-with-your-mouth/ , or watch the documentary Why Us Left Behind and see young people living with HIV and Dying.

Updated about 2 weeks ago  •  Comment  •  Like  •  Report Note
Recruitment, enrollment, retention

1017 Screened

828 eligible

312 control

326 referrals

638 total control

484 completed follow up (75%)

79% of those eligible enrolled

1.04 average referral per control

1.79 average referral per intervention

340 intervention

604 referral

944 total intervention

711 completed follow-up (75%)

75% of sample completed at least One follow up
Recruitment demographics

- Hispanic
- Non-Hispanic
- Other Ethnicity
- African American / Black
- American Indian / Alaska Native
- Asian
- Pacific Islander / Hawaiian
- White / Anglo Caucasian
- Other Race

Female
Male
Preliminary outcomes, condom use last sex

Baseline 2 months

Intervention
Control
Social networks
Limitations of cell phones and social media

- Low income populations may be difficult to reach; even though there is widespread coverage of phones, use is often limited to incoming text only.
- Low literate populations likely have difficulty reading and sending text message
- Access to internet and online social media
- Shouldn’t replace face to face intervention; should supplement, augment, enhance, extend and intensify other interventions
Maximize global health action: the Health Impact Pyramid

Prevention Approach

Ways to use technology
- Internet based education; Websites With self-administered risk assessments That can generate tailored, user-specific Directives for behavior change
- Telephone based text messaging For promotion of adherence to Medication or to send reminders for follow up
- Using text messaging To prompt adherence For vaccine (e.g. HPV); To promote circumcision
- Using blogs, Twitter Facebook to engage In dialogue about Policy change
- Using SM to link Users to job fairs Training, education

Communicable

Non-Communicable

Injury

Harnessing social and mobile media to maximize global health impact

**Prevention Approach**

- **Ways to use technology**
  - Internet based education; Websites with self-administered risk assessments that can generate tailored, user-specific directives for behavior change
  - Telephone based text messaging for promotion of adherence to medication or to send reminders for follow up
  - Using text messaging to prompt adherence for vaccine (e.g. HPV); to promote circumcision
  - Using blogs, Twitter, Facebook to engage in dialogue about policy change
  - Using SM to link users to job fairs, training, education

- **Communicable**
  - Youthnet* and CyberSenga+, both focused on Internet Based HIV Prevention for youth
  - 411: cell phones and SM to promote access to HIV Testing and STI Prevention among Young black men*
  - Using SM to promote norms and social network support for healthy sexual behaviors: Just/Us*
  - TOP4ME: SMS to Support Youth Development Program messages about pregnancy*

- **Non-Communicable**
  - LUCHAR*, Internet Based CVD/Diabetes Prevention for Latinos
  - Computerized Pregnancy Decision Tool helping decisions re vaginal Vs. Cesarean Birth++
  - Operation protect: Disseminating YouTube videos re: Sun protection+

- **Injury**
  - TOP4ME: SMS to Support Youth Development Program messages about violence*