The Future of Health is Mobile and Social

Jay M. Bernhardt, PhD, MPH

Professor of Health Education and Behavior
Director of the Center for Digital Health and Wellness
College of Health and Human Performance and College of Public Health and Health Professions
Starting Summer 2014

• Professor in the Moody College of Communication, University of Texas at Austin and Everett D. Collier Centennial Chair in Communication

• Founding Director of a new “UT Center for Health Communication”

• Expected joint appointments in the new Dell School of Medicine, UT College of Education, and UT-H School of Public Health - Austin Regional Campus

• jay.bernhardt@austin.utexas.edu
Social Media Today and Tomorrow

http://www.youtube.com/v/zxpa4dNVd3c
Adult Gadget Ownership (2006-2013)

Adult gadget ownership over time
% of American adults ages 18+ who own each device

Source: Pew Internet surveys 2006-2013

http://www.pewinternet.org/Trend-Data-(Adults)/Device-Ownership.aspx
Mobile Only Households

Percentages of adults and children living in households with only wireless telephone service or no telephone service: United States, 2003–2012

NOTE: Adults are aged 18 and over; children are under age 18.
SOURCE: CDC/NCHS, National Health Interview Survey.
Mobile Only Households

- Hispanic adults (51%) more likely than non-Hispanic white adults (33%) or non-Hispanic black adults (39%) to be mobile only
- Renters (54%) more mobile only than home owners (25%)
- People in mobile-only households exhibit more risk behaviors
  - 5 or more drinks/day: 30% mobile 18% landlines
  - Smokers: 30% mobile 14% landlines
  - Get flu vaccine: 28% mobile 43% landlines
- Take home message: Mobile-only households are significantly different from households with landlines

Source: CDC NCHS Wireless Substitution Early Release of Estimates from the National Health Interview Survey, July – December 2012
## Mobile Phone Activities (2010)

<table>
<thead>
<tr>
<th>Activity</th>
<th>All adults</th>
<th>White, non-Hispanic</th>
<th>Black, non-Hispanic</th>
<th>Hispanic (English-speaking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own a cell phone</td>
<td>82%</td>
<td>80%</td>
<td>87%</td>
<td>87%*</td>
</tr>
<tr>
<td>% of cell owners within each group who do the following on their phones</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take a picture</td>
<td>76</td>
<td>75</td>
<td>76</td>
<td>83*</td>
</tr>
<tr>
<td>Send/receive text messages</td>
<td>72</td>
<td>68</td>
<td>79*</td>
<td>83*</td>
</tr>
<tr>
<td>Access the internet</td>
<td>38</td>
<td>33</td>
<td>46*</td>
<td>51*</td>
</tr>
<tr>
<td>Send/receive email</td>
<td>34</td>
<td>30</td>
<td>41*</td>
<td>47*</td>
</tr>
<tr>
<td>Play a game</td>
<td>34</td>
<td>29</td>
<td>51*</td>
<td>46*</td>
</tr>
<tr>
<td>Record a video</td>
<td>34</td>
<td>29</td>
<td>48*</td>
<td>45*</td>
</tr>
<tr>
<td>Play music</td>
<td>33</td>
<td>26</td>
<td>52*</td>
<td>49*</td>
</tr>
<tr>
<td>Send/receive instant messages</td>
<td>30</td>
<td>23</td>
<td>44*</td>
<td>49*</td>
</tr>
<tr>
<td>Use a social networking site</td>
<td>23</td>
<td>19</td>
<td>33*</td>
<td>36*</td>
</tr>
<tr>
<td>Watch a video</td>
<td>20</td>
<td>15</td>
<td>27*</td>
<td>33*</td>
</tr>
<tr>
<td>Post a photo or video online</td>
<td>15</td>
<td>13</td>
<td>20*</td>
<td>25*</td>
</tr>
<tr>
<td>Purchase a product</td>
<td>11</td>
<td>10</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Use a status update service</td>
<td>10</td>
<td>8</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Mean number of cell activities</td>
<td>4.3</td>
<td>3.8</td>
<td>5.4</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older, including 1,917 cell phone users. * = statistically significant difference compared with whites.
Text Message Use (SMS) Continues to Increase

- 9.8T SMS messages sent in 2012
- 80% of all US cell phone owners text
- 92% of US smart phone owners text
- US SMS users average 35 texts per day
- 54% of “digital natives” prefer texting over talking vs. 28% of “digital immigrants”

http://www.factbrowser.com/tags/sms/
## Daily SMS Use (2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All text messaging users</strong></td>
<td>41.5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>40.9</td>
<td>10</td>
</tr>
<tr>
<td>Women</td>
<td>42.0</td>
<td>15</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>87.7</td>
<td>40</td>
</tr>
<tr>
<td>30-49</td>
<td>27.0</td>
<td>10</td>
</tr>
<tr>
<td>50-64</td>
<td>11.4</td>
<td>3</td>
</tr>
<tr>
<td>65+</td>
<td>4.7</td>
<td>2</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>31.2</td>
<td>10</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>70.1</td>
<td>20</td>
</tr>
<tr>
<td>Hispanic</td>
<td>48.9</td>
<td>20</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $30,000</td>
<td>58.7</td>
<td>20</td>
</tr>
<tr>
<td>$30,000-$49,999</td>
<td>40.2</td>
<td>15</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>25.9</td>
<td>10</td>
</tr>
<tr>
<td>$75,000+</td>
<td>31.9</td>
<td>10</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>69.4</td>
<td>20</td>
</tr>
<tr>
<td>High School diploma</td>
<td>45.4</td>
<td>15</td>
</tr>
<tr>
<td>Some College</td>
<td>53.0</td>
<td>15</td>
</tr>
<tr>
<td>College+</td>
<td>23.8</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: The Pew Research Center’s Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.
Almost two-thirds of cell owners go online using their phones

Among cell phone owners, the % who use the internet or email on their phone

N=2,076 cell phone owners ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on cell phone owners is +/- 2.4 percentage points.
## Demographics of cell-mostly internet users

Among cell internet users, the % who mostly use their phone to go online

<table>
<thead>
<tr>
<th>Category</th>
<th>% who mostly go online using their cell phone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All cell internet users (n=1,185)</strong></td>
<td>34%</td>
</tr>
<tr>
<td>a. Men (n=598)</td>
<td>34</td>
</tr>
<tr>
<td>b. Women (n=587)</td>
<td>34</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>a. White, Non-Hispanic (n=762)</td>
<td>27</td>
</tr>
<tr>
<td>b. Black, Non-Hispanic (n=158)</td>
<td>43(^a)</td>
</tr>
<tr>
<td>c. Hispanic (n=157)</td>
<td>60(^b)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>a. 18-29 (n=338)</td>
<td>50(^bcd)</td>
</tr>
<tr>
<td>b. 30-49 (n=405)</td>
<td>35(^ca)</td>
</tr>
<tr>
<td>c. 50-64 (n=304)</td>
<td>14</td>
</tr>
<tr>
<td>d. 65+ (n=109)</td>
<td>10</td>
</tr>
<tr>
<td><strong>Education attainment</strong></td>
<td></td>
</tr>
<tr>
<td>a. Less than high school/High school grad (n=333)</td>
<td>43(^bc)</td>
</tr>
<tr>
<td>b. Some College (n=306)</td>
<td>34(^a)</td>
</tr>
<tr>
<td>c. College + (n=541)</td>
<td>21</td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
</tr>
<tr>
<td>a. Less than $30,000/yr (n=238)</td>
<td>43(^cd)</td>
</tr>
<tr>
<td>b. $30,000-$49,999 (n=175)</td>
<td>39(^a)</td>
</tr>
<tr>
<td>c. $50,000-$74,999 (n=171)</td>
<td>30</td>
</tr>
<tr>
<td>d. $75,000+ (n=429)</td>
<td>27</td>
</tr>
<tr>
<td><strong>Urbanity</strong></td>
<td></td>
</tr>
<tr>
<td>a. Urban (n=436)</td>
<td>33</td>
</tr>
<tr>
<td>b. Suburban (n=571)</td>
<td>35</td>
</tr>
<tr>
<td>c. Rural (n=176)</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Pew Internet & American Life Project Spring Tracking Survey, April 17-May 19, 2013. N=1,185 cell internet users ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on cell internet users is 4/- 3.3 percentage points.

Note: Percentages marked with a superscript letter (e.g., \(^a\)) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g., age).
Adult Smartphone Ownership (2011-2013)

Source: Pew Research Center’s Internet & American Life Project April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013 tracking surveys. For 2013 data, n=2,252 adults and survey includes 1,127 cell phone interviews. All surveys include Spanish-language interviews.
Smartphone ownership by demographic group—gender, age, race/ethnicity
% within each group who own a smartphone

<table>
<thead>
<tr>
<th>Own a smartphone</th>
<th>56%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All adults (n=2,252)</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>a Men (n=1,029)</td>
<td>59&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>b Women (n=1,223)</td>
<td>53</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>a 18-24 (n=243)</td>
<td>79&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>b 25-34 (n=284)</td>
<td>81&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>c 35-44 (n=292)</td>
<td>69&lt;sup&lt;f&lt;/sup&gt;</td>
</tr>
<tr>
<td>d 45-54 (n=377)</td>
<td>55&lt;sup&gt;e&lt;/sup&gt;</td>
</tr>
<tr>
<td>e 55-64 (n=426)</td>
<td>39&lt;sup&gt;f&lt;/sup&gt;</td>
</tr>
<tr>
<td>f 65+ (n=570)</td>
<td>18</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>a White, Non-Hispanic (n=1,571)</td>
<td>53</td>
</tr>
<tr>
<td>b Black, Non-Hispanic (n=252)</td>
<td>64&lt;sup&gt;n&lt;/sup&gt;</td>
</tr>
<tr>
<td>c Hispanic (n=249)</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Pew Research Center’s Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

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Smartphone ownership by demographic group—education, household income, geography
% within each group who own a smartphone

<table>
<thead>
<tr>
<th>Own a smartphone</th>
<th>56%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All adults (n=2,252)</td>
<td></td>
</tr>
<tr>
<td><strong>Education attainment</strong></td>
<td></td>
</tr>
<tr>
<td>a Less than high school (n=168)</td>
<td>36</td>
</tr>
<tr>
<td>b High school grad (n=630)</td>
<td>46&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>c Some College (n=588)</td>
<td>60&lt;sup&gt;&lt;sup&gt;b&lt;/sup&gt;&lt;/sup&gt;</td>
</tr>
<tr>
<td>d College + (n=834)</td>
<td>70&lt;sup&gt;&lt;sup&gt;abc&lt;/sup&gt;&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
</tr>
<tr>
<td>a Less than $30,000/yr (n=580)</td>
<td>43</td>
</tr>
<tr>
<td>b $30,000-$49,999 (n=374)</td>
<td>52&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>c $50,000-$74,999 (n=298)</td>
<td>61&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>d $75,000+ (n=582)</td>
<td>78&lt;sup&gt;abc&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Urbanity</strong></td>
<td></td>
</tr>
<tr>
<td>a Urban (n=763)</td>
<td>59&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>b Suburban (n=1,037)</td>
<td>59&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>c Rural (n=450)</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: Pew Research Center’s Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).
Mobile Access and Usage Summary

• Mobile phone access is ubiquitous
• Smartphones are rapidly replacing feature phones among all population groups
  – Android OS more popular than iOS (iPhone)
• Use of mobile features such as texting, web access, and apps are highest among minority and lower income populations
What is mHealth?
mHealth vs. eHealth

• **mHealth** (aka m-health or mobile health)
  – Application of mobile devices including phones, tablets, and integrated monitoring devices to support all aspects of healthcare and public health

• **eHealth** (aka health information technology [HIT], health or medical informatics)
  – Application of information technology to health systems including electronic health records, information management systems, surveillance
mHealth Taxonomy

MEDICAL CARE:
- Clinical decision support systems
- Medical education
- Disease monitoring
- Acute disease management

PREVENTION/HEALTH PROMOTION:
- Treatment programs
- Chronic disease management
- Medication adherence
- Health behavior change
- Untargeted mass health promotion

SYSTEMS:
- Data collection tools
- Medical records
- Test results notification
- Appointment reminders
By next year, **9 in 10** healthcare providers will use smartphones, and nearly as many will have adopted tablets. Almost half of all respondents are “digital omnivores,” defined as clinicians who utilize a tablet, smartphone and laptop/desktop computer routinely in a professional capacity.

Top Apps for Health Care Professionals

- **Reference Apps**
  - Merck Manual, Medscape, Unbound Medicine, LabGear, etc.

- **Medical Education Apps**
  - Heart Pro III, Netter’s Anatomy Atlas, CARDIO3, etc.

- **EMR and Patient Monitoring Apps**
  - Epic Canto, Epic Haiku, Cerner Physician Express, etc.

- **Nursing Apps**
  - Voalte One, Medigram, MedCalc, Nursing Central, etc.

- **Imaging Apps**
  - Mobile MIM, Radiology 2.0, AIRP Syllabus 2012, etc.

- **Patient Education Apps**
  - Muscle System Pro III, Orthopedic Patient Education, etc.

- **Point of Care Apps**
  - drawMD Urology, FINR Brain Atlas, Knee Pro III, etc.

http://mobihealthnews.com/19206/apples-top-80-apps-for-doctors-nurses-patients/
mHealth for Patient Reminders

• Reviewed 29 studies with 33 interventions
  – Study sizes: n=325-2864
  – Study durations: 2-7 months

• 32 of 33 interventions showed benefits of sending reminders prior to appointments
  – Manual calls more effective than automated reminders (39% vs. 29%) but higher cost
  – No differences on reminder timing


http://www.amcomsoftware.com
mHealth for Type 2 Diabetes

• Reviewed 13 telehealth interventions for T2
  – 4 studies showed improved glycemic control
  – 5 of 8 showed improved dietary adherence
  – 5 of 8 showed improved physical activity
  – 3 of 8 showed improved blood glucose monitoring
  – 3 of 8 showed improved medication adherence

• Conclusion: Behavioral telehealth has promise

mHealth for Prevention & Health Promotion

- High access among hard-to-reach patients
- Facilitates messages that are accessible, sustainable, sharable, social, multimedia, multi-directional, personalized, and deeply engaging
- Relatively low cost for high reach and impact
- Text message interventions have strong evidence of efficacy
SMS-Based mHealth Findings

- Reviewed 12 studies (17 articles) using SMS
  - Intervention length ranged from 3-12 months
  - Sample sizes (n=16-126, + 1,705)
  - Disease management: Diabetes, Asthma
  - Disease prevention: Medication adherence, Weight loss, Physical activity, Smoking cessation
  - 8 of 9 powered studies found evidence of significant behavior change

mHealth Pilots are Focusing on Health Disparities

• Formative research on SMS for health (Kharbanda et al, 2009)
  – SMS immunization reminders were OK among urban parents
• SMS Pilot on Diabetes Self Management (Dick et al, 2011)
  – Older adult urban African American population (n=18)
  – Although ½ of respondents were initially uncomfortable with SMS messages, treatment adherence and self-care confidence improved
• SMS on influenza vaccine (Stockwell et al, 2012)
  – SMS increased vaccine uptake urban, low income pediatric patients
• Despite the potential, limited mHealth research focused on underserved patients and populations has been published
SMS-based mHealth Programs

Don't forget your multivitamin! Baby's spine and brain are developing now. Getting 400 micrograms of folic acid daily is key to help prevent birth defects.

Reply Back
SMS Example: text4baby

- **Goal:** To improve prenatal care by engaging women at highest risk of having poor birth outcomes
- Free program from National Healthy Mothers, Healthy Babies Coalition with J&J and 900+ partners
- Over 600,000 mothers since 2010 and more than 75 million text messages
- Three free text messages per week
- Health tips timed to due/birth date
- Available in both English and Spanish

Adapted from Bushar & Kendrick (2013). Text4baby Just Turned Three! What Have We Learned? DHCX 2013 Presentation.
SMS Example: text4baby

- **Process Evaluations**
  - Users: 53% pregnant, 46% delivered
  - Referrals 23% MD/RN, 23% media, 16% HD
  - Good at reaching moderately low income

- **Outcome Evaluations**
  - Increases self efficacy among moms
  - Helps remind about vaccines

- **Program Improvements**
  - More 2-part (longer) messages
  - Links to mWeb sites

Adapted from Bushar & Kendrick (2013). Text4baby Just Turned Three! What Have We Learned? DHCX 2013 Presentation.
mHealth via Mobile Web (mWeb)

- Almost two-thirds of mobile phone owners go online
- More time is spent accessing web from mobile than desktops/laptops
- Many health sites do not have a mobile optimized website
- Use “responsive design” or create a mobile layer of critical content
mHealth via Apps

- About 1.5M apps available
- About 70B downloads
- About 40K health apps and 50M downloads
- Limited efficacy evidence
- Variable production costs
- Games and gamification for health has potential
Consumer Health Apps 2012

mHealth Apps for Mental Health
The Future of mHealth: Games

- 91% of 2-17 year olds play games
- All age groups are increasing play
- Mobile games growing fastest
- Youth average play > 1 hour/day
- “Games for Health” is spreading
- Literature and evidence is growing
The Future of mHealth: Quantified Self Tracking

- Tracking:
  - Steps, Sleep, Air, Mood, Performance, etc.
- Rapid sales growth
- Frequent innovation
  - Kickstarter/Indiegogo
- Wearibles = new thing!
- Limited research
mHealth Opportunities & Challenges

• Mobile access is nearly ubiquitous across all groups
  – Smartphone access is growing rapidly

• mHealth applies to all healthcare and public health
  – Strongest evidence base for SMS/Text Messages

• mHealth can reach underserved populations
  – Early evidence stresses interactivity and tailoring
  – More research and evaluation are needed

• Many challenges remain including expertise, reimbursement, privacy, regulation, and liability
  – CMS and many states are promoting pilots and legislation
The Future of Health Promotion is Mobile and Social
Social Networking Is the No. 1 Online Activity in the U.S.
Average time U.S. consumers spent with digital media per day in 2012 (hours:minutes)

n=5,000 adults (ages 13-64)

Source: GfK, IAB
26% of internet users have read someone else’s health experience
11% of social network users have posted about health or medical matters.
9% of social media users have started or joined a health-related group
3-4% of internet users have posted about their own healthcare experience

http://www.pewinternet.org/topics/Health.aspx
Peer to Peer Health Information

Peer-to-peer healthcare

1. Among online health information seekers, 16% in the past year tried to find others who might share the same health concerns.

2. 30% of internet users have consulted online reviews or rankings of health care services or treatments.

3. 26% of internet users have read or watched someone else’s experience about health or medical issues in the past year.

http://www.pewinternet.org/Reports/2013/Health-online/Summary-of-Findings.aspx
“We have never lived in a time with the opportunity to put a computer in the pocket of 5 billion people.”

- Marc Andreessen
State Health Departments: Adoption and Use

Local Health Departments: Adoption and Use

8% Twitter
24% Facebook
7% Twitter

Local Health Department: Adoption and Use

Using Twitter to Disseminate Diabetes Info

- Collected tweets about diabetes from 217 LHDs
- 126 (58%) of the LHD had tweeted about diabetes
- Of those who tweeted about diabetes, they were significantly more likely to:
  - Provide diabetes programs
  - Have a PIO

What are LHD’s tweeting about?

Local Health Department: Twitter Followers

- More organizations than individuals
- Organizations
  - Health-focused
  - Located outside the state
  - Education, govt, and non-profits
- Individuals
  - Local
  - Not health-focused
- Higher percentage of local followers
  - Having a PIO on staff
  - Serving a larger population
  - Tweeting more frequently

Harris, J., Choucair, B., Maier, R., Jolani, N., Bernhardt, J. (under review). Are public health organizations tweeting to the choir? Understanding LHD Twitter followership.
Top 5 Most Social Media Friendly State Health Departments for 2013

• Arizona Dept of Health Services
  – Almost 5M YouTube views*
• California Dept of Public Health
  – Almost 8k Twitter followers
• Florida Department of Health
  – Almost 2.5k Facebook likes
• Michigan Dept of Comm Health
  – Almost 5k Twitter followers
• Alaska Dept of Health & Social Svc
  – More than 125k YouTube views

* More than 4.5M from other sources
New Media Use in SHD’s and LHD’s

- Increasing numbers of HD’s using new media
- Very low numbers of users relative to pops
- Not necessarily reaching targeted audiences
- Predictors of greater new media success
  - Having expertise (e.g., public information officer)
  - Sharing updates with greater frequency
  - Repurposing other people’s content
Digital Health will be Revolutionary

“The best way to predict the future, is to invent it.” - Alan Kay
Thank you!

jaybernhardt@ufl.edu

jay.bernhardt@austin.utexas.edu
Essential Services of Public Health
1. Monitor Health to Identify and Solve Community Health Problems

• Accurate, periodic assessment of the community’s health status, including:
  – Identification of health risks
  – Attention to vital statistics and disparities
  – Identifications of assets and resources

• Population health registries
Public Health 2.0: Monitor Health

• Open-source data
• Data “mashups”
• Social media data mining
2. Diagnose and Investigate Health Problems and Hazards in the Community

- Timely identification and investigation of health threats
- Availability of diagnostic services, including laboratory capacity
- Response plans to address major health threats
Public Health 2.0: Diagnose & Investigate

- Mobile wireless data collection
- Public health informatics


3. Inform, Educate, and Empower People About Health Issues

- Initiatives using health education and communication sciences to:
  - Build knowledge and shape attitudes
  - Inform decision-making choice
  - Develop skills and behaviors for healthy living
- Health education and health promotion partnerships within the community to support healthy living
- Media advocacy and social marketing
Public Health 2.0: Health Promotion

- User Generated Content
- Social media campaigns
- Gamification
4. Mobilize Community Partnerships to Identify and Solve Health Problems

- Constituency development and identification of system partners and stakeholders
- Coalition development
- Formal and informal partnerships to promote health improvement
Public Health 2.0: Networks & Partnerships

• Social networks for building coalitions and communities
5. Develop Policies & Plans That Support Individual and Community Health Efforts

- Policy development to protect health and guide public health practice

6. Enforce Laws and Regulations That Protect Health and Ensure Safety

- Review, evaluation, advocacy, revision, education, and support of legal authority, laws, and regulations
Public Health 2.0: Laws & Policies

• Engage and organize through social media
• Apps and GPS-based policy education
• Smart video capture

http://abcnews.go.com/OnCampus/story?id=7481546&page=1
http://nationalsecurityzone.org/site/tag/chicago/
7. Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable

- Identifying populations with barriers to care
- Effective entry into a coordinated system of care
- Ongoing care management
- Culturally appropriate and targeted health information for at risk population groups
- Transportation and other enabling services
Public Health 2.0: Location Based Services

• Location based services
• Using mobile for hard to reach
• Tailored tracking and messages
8. Assure a Competent Public and Personal Healthcare Workforce

- Assessment of public health & healthcare workforce
- Maintaining public health workforce standards
  - Efficient processes for licensing / credentialing requirements
  - Use of public health competencies
- Quality improvement and life-long learning
  - Leadership development
  - Cultural competence
Public Health 2.0: Workforce

- Distance education
- Social networks for professionals
- Web 2.0 training and access at work

Digital Health Communication EXTRAVAGANZA

Sermo

Surround Health

@jaybernhardt
9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-based Health Services

10. Research for New Insights and Innovative Solutions to Health Problems
Public Health 2.0: Research & Evaluation

• Technology for data collection and mining
• QR codes and mobile for real-time feedback
• Online tools to speed translation/dissemination

http://www.kinesissurvey.com/demos/mobile-demo/
Advantages of Public Health 2.0 Programs

• Increased & Sustained Reach
• Deeper Audience Relevance, Involvement, and Engagement
• Scalable and Affordable Interventions
• Facilitates Measurement and Program Evaluation

http://www.fastcompany.com/1603217/the-five-stages-of-foursquare-use