Providing Information across Multiple Devices to the Public Health Workforce: Challenges and Opportunities

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Public Health Partners

- Partners in Information Access for the Public Health Workforce (PHPartners)
  - Public Health Organizations
  - Federal Government Agencies
  - Health Science Libraries
- Founded in 1997
- Mission: To help the public health workforce find and use information effectively to improve and protect the public's health.
- Website: http://PHPartners.org

Partners in Information Access for the Public Health Workforce

- Agency for Healthcare Research and Quality (AHRQ)

- American Public Health Association (APHA)

- Association of Schools & Programs of Public Health (ASPPH)

- Association of State and Territorial Health Officials (ASTHO)

- Centers for Disease Control and Prevention (CDC)

- Health Resources and Services Administration (HRSA)

- Medical Library Association (MLA)

- National Agricultural Library (NAL)

- National Association of County and City Health Officials (NACCHO)

- National Association of Local Boards of Public Health

- National Library of Medicine (NLM)

- National Network of Libraries of Medicine (NN/LM)

- Public Health Foundation (PHF)

- Society for Public Health Education (SOPHE)

PHPartners.org

- Information for public health practice

- Components:
  - Topic pages
  - Data, tools & statistics
  - Conferences/webinars
  - News
  - Jobs & careers
  - PubMed searches
  - Reports, guidelines and more!

- Updated daily

- Strong selection criteria

Public Health Workforce Use of Mobile Technology Tools

Mobile Technology Tools	All Local Health Departments	Size of Population Served		
		<50,000	50,000-499,999	500,000+
Smartphones	91%	86%	97%	98%
Electronic Tablets	48%	40%	55%	75%

n=419

Public health departments are increasingly using mobile technology for activities and services including disaster preparedness and emergency response.
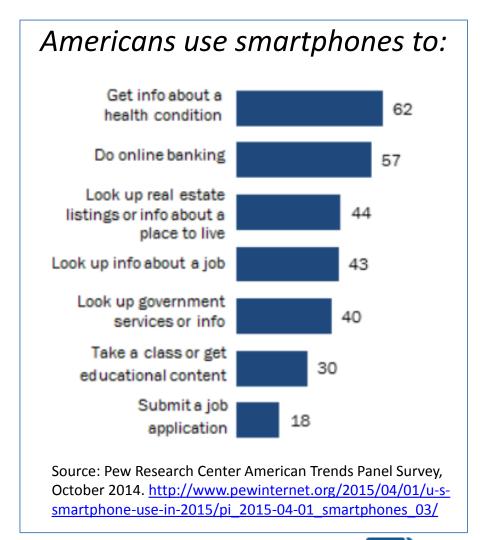
U.S. Mobile Device Use

Adult Americans:

- 90% own a cell phone[1]
- 64% own a smartphone[2]
- 32% own an e-reader[1]
- 42% own a table computer[1]

[1] As of October 2014
[2] As of January 2014

Source: Pew Research Center. Mobile Technology Fact Sheet. http://www.pewinternet.org/fact-sheets/mobile-technology-fact-sheet/

Americans use smartphones to:

Get info about a health condition	62
Do online banking	57
Look up real estate listings or info about a place to live	44
Look up info about a job	43
Look up government services or info	40
Take a class or get educational content	30
Submit a job application	18

Source: Pew Research Center American Trends Panel Survey, October 2014. http://www.pewinternet.org/2015/04/01/u-s-smartphone-use-in-2015/pi_2015-04-01_smartphones_03/

Responsive Design

- Allows users to have similar web experiences on all types of devices
  - smartphones, tablets, desktops, smart TVs, wearables, and future devices.
- Responsive web pages automatically change their visual layout to fit the screen
- Same URL and content optimized to display
- No need for separate mobile website

Responsive Web Design

- Flexible, grid-based layout

- Flexible images and media

- Style rules for pages based on characteristics of the device

Why Responsive Design for PHPartners.org?

- The public health workforce is using mobile technology (users of PHPartners.org)

- Technical team at NLM able to work on responsive design (technical support)

- Google's mobile-friendly algorithm:
  - In April 2015, Google expanded the use of mobile-friendliness as a ranking signal
  - Search results optimized for devices
  - Mobile-friendly sites rank higher in search results

Source: Makino T, Jung C, Phan D. Finding More Mobile-friendly Search Results February 26, 2015
http://googlewebmastercentral.blogspot.com/2015/02/finding-more-mobile-friendly-search.html

The Process

1. Reviewed Partner members' websites and responsively designed sites
2. Reviewed content: highest-value content first
3. Determined how to display content on different devices (desktop, tablet, smartphone)
4. Cleaned up code and integrated with content management system
5. Reviewed and tested on development/beta site

Mobile-friendly PHPartners.org

Smaller screen display:

- – Text readable without zooming

- – Easy tapping

- – Three columns change to one column

- – Menus and headings collapse

- – Buttons replace text – click to open

PHPartners.org Responsive Design

PHPartners.org Responsive Design

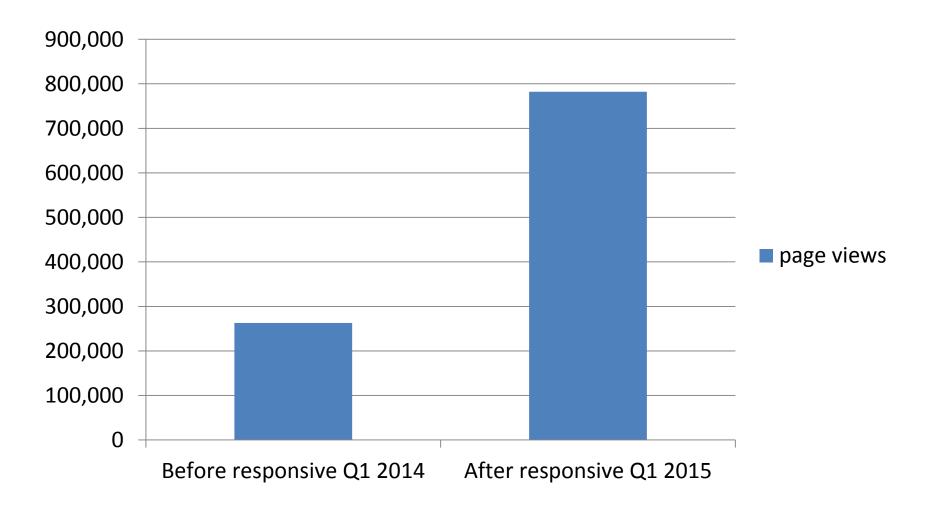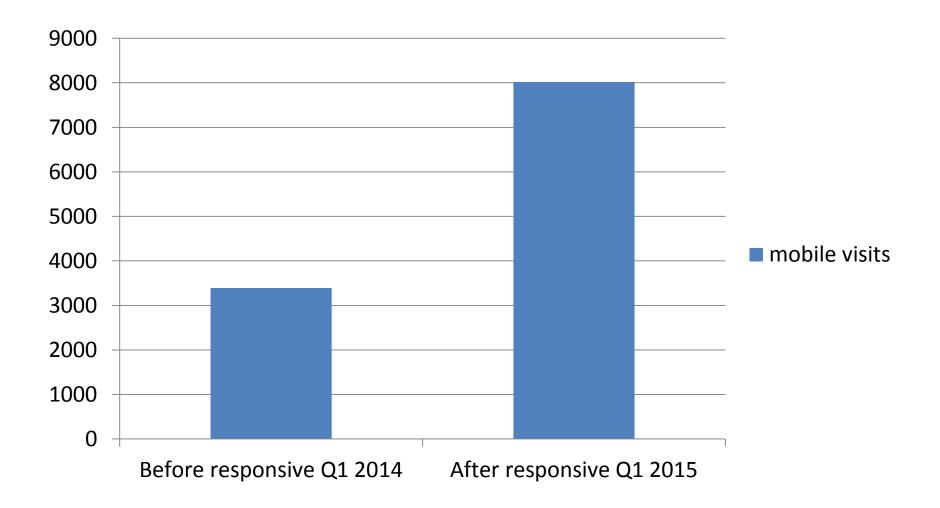# PHPartners.org Responsive Design

PHPartners.org Usage

PHPartners.org Usage

Mobile Visits

PHPartners.org
Post Responsive Design

- Overall increase in use of PHPartners site by 44%

- Mobile use increased by 137%

- 1/3 of increase of site visits can be attributed to Google referrals

- Referrals from Google increased by > 240%

Responsive Design Feedback

- Comments for PHPartners Editorial Board:
  - "I have tested the Responsive design – mobile version - and I like it. Kudos to you guys for getting it done."
  - "Looks great"
  - "Very usable"
- Recommendation: improve display of search results
- Spread the word among Partner Organizations
- Test and report back

Challenges

- Technical team
  - Need their time and expertise
  - New tech (Apple watch) need to adapt and change
- Portal site
  - Not all links in PHPartners are responsively designed
  - More sites are moving to responsive design
  - Hoping this happens in a timely manner
  - When Partners released, not many of the public health sites were responsively designed, and did not have plans to become responsive

Addressing Issues

- Size and spacing of font and headings

- Headings and home page content

- Images in responsive design

- PubMed searches in site:

  - PubMed has a mobile site, limited functions

  - Will be responsively designed, but no date set

  - Other mobile only sites

Other NLM Responsive Design Sites

- M+ Medline plus
  - Consumer health information

- Daily Med
  - provides trustworthy information about marketed drugs in the United States. DailyMed is the official provider of FDA label information (package inserts)

- AIDSInfo

- Other NLM sites in process of responsive design
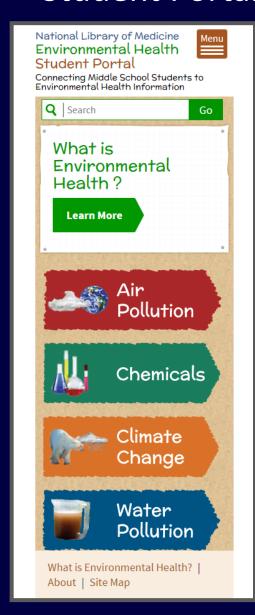
Responsive at NLM

Environmental Health Student Portal

Health Hotlines

NLM Digital Collections

Next Steps

- PHPartners.org is undertaking a usability study

- We will get feedback from users, make adjustments as necessary

- Will incorporate any website changes into the responsively designed website

- Continue to adapt to new mobile devices

Thank you!

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NISO Webinar

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