Abstract
In 2011, Public Health Practices (PHP) developed a social media campaign to raise awareness of its online collection of state and local practices in disaster preparedness and response. Campaign components included selection of appropriate outreach channels, curation of content for multiple digital formats, and branding efforts. While awareness and use of the Web site increased by more than 20%, PHP also learned and implemented several valuable lessons concerning the unique ways in which governmental health practitioners use social media.

Executive Summary
Outcomes from a Digital Initiative to Share and Promote Public Health Practices in Emergency Preparedness and Response

Background
Since 2007, the Public Health Practices (PHP) project — a partnership between the Center for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota and the Association of State and Territorial Health Officials (ASTHO) — and its associated Web site have served as a one-stop shop for public health and emergency response professionals seeking tools and strategies to respond to the health consequences of disasters.

Staff from public health agencies submit practices and stories of preparedness and response activities, which are then researched and written for online publication by PHP staff.

Originally begun as a means to share practices related to pandemic influenza planning, PHP expanded in 2011 to collect, vet, and publish practices on a range of topics affecting preparedness and response work in state and local health agencies:

- Behavioral health
- Bioterrorism
- Chemical emergency
- Climate change
- Earthquake
- Extreme heat
- Flood
- Hurricane
- Pandemic influenza
- Radiological emergency
- Tornado
- Tsunami
- Volcano
- Wildfire
- Winter weather
Until 2011, the PHP Web site was static (ie, devoid of many interactive components, with an unchanging home page and no links to social media platforms). The static site served as PHP’s primary method of outreach to its intended audience of health professionals.

**PHP’s Approach to Social Media: A Multi-Platform Outreach**

**Goals**
Because this was the first time PHP had used social media or digital outreach to promote its collection of practices, the program had two main goals:

1. Build and document traffic to and use of the practices on the PHP Web site. Use was defined to include anything from sharing a practice, posting a link or comment about a practice on another site, and use of a practice within a health agency to inform preparedness and response activities or decision-making.

2. Encourage submissions of publishable practices from health agencies and their partners, establishing PHP’s Web site as a reliable source not only of information and tools, but also as a place for professional recognition.

A secondary goal was to use targeted content curation and outreach to help professionals access what had become an unwieldy collection of more than 400 practices that was, by its nature, difficult to search and use as a static site.

**Assumptions**
PHP works within a limited budget, much of which is devoted to Web site management, and with a staff of 1.75 FTE people, and it was important to clarify assumptions before undertaking a manageable program of outreach in June 2011. Because PHP partnered with the ASTHO in initiating its social media and digital outreach program, assumptions also reflected ASTHO’s priorities and the needs of its constituencies.

Assumptions included:
- State health officials and state preparedness directors were our primary focus for increasing awareness and usage of practices on the PHP Web site.
- Secondary audiences included all agencies or organizations that health agencies partner with to establish disaster preparedness and response programs.
- Progress would be measured by ongoing documentation, testing, reporting, and, if necessary, adjusting methods or platforms.
- Channels for outreach had to be widely used, free or low-cost, and easy to access by the target population.
- A coordinated plan would monitor and implement outreach over several channels from June 1, 2011, to May 31, 2012.

**Methodology and Implementation**

**Selection of social media channels**
PHP selected the following means to create awareness and disseminate information:

- Creating an [organization page on Facebook](#), which was updated about once a week.
- Creating a [Twitter feed](#), which was updated daily with information about practices, project news, or links to similar organizations.
- Publishing an [electronic newsletter](#) that compiled a collection of practices curated around a specified theme, sent monthly to a listserv. Prior to 2011, the newsletter consisted of a Word document pasted into an e-mail compose screen. In 2011, PHP created customized and professional newsletters in a Constant Contact template designed for nonprofit agencies.
• Adding home page updates that focus on making the site more interactive, thematic, and visually appealing.

**Content inventory and editorial planning**

At the outset of PHP's digital outreach initiative, staff issued a themed newsletter (eg, "Collaborations with Pharmacists") monthly, while at the same time using social media to feature practices chosen somewhat at random from the Web site. The rationale behind not integrating editorial calendars was that any exposure of practices buried within the bulk of PHP's online information was beneficial and served the goal of increasing awareness.

In 2012, however, PHP staff conducted its first comprehensive content inventory and analysis of every piece of information, practice, and downloadable tool on its Web site. More than 400 practices were analyzed and tagged according to source jurisdiction (eg, local health agency), applicability to federal evaluation metrics and standards, types of disasters discussed, partners involved in the practice's creation (eg, community-based organizations), type of population served (eg, people with disabilities), resources provided (eg, toolkits), and other factors.

The content inventory revealed a number of themes and subjects present in collected practices that, until they had been viewed as a whole, were not readily apparent. The data-driven discovery of thematic material led to the development of editorial calendars (discussed on p. 5).

**Branding**

Although branding is often viewed as a luxury for many nonprofit agencies, PHP staff made the decision to pursue some small branding efforts. Given the fact that public health agencies and partners work within a restricted governmental communications structure and have been fairly late adopters of social media, staff believed that branding efforts would lend professionalism and visual appeal to its outreach efforts. In other words, branding conveyed a particular identity necessary to effective outreach; PHP wanted to be instantly recognized as a reputable peer.

Branding digital outreach efforts consisted of working with a graphic designer to develop a Twitter and Facebook avatar: a blue light bulb and the project's acronym against an orange background (See page 1). Additionally, staff worked closely with an interactive marketing specialist to develop a consistent voice across digital platforms.

**Activities to promote awareness**

Recognizing that use of social media accomplishes very little unless intended audiences are informed of that use, PHP staff conducted lateral efforts to ensure that audiences were made aware of the variety of ways they could receive information about practices and interact with staff.

Outreach was conducted via participation on the monthly Directors of Public Health Preparedness conference call, facilitated by ASTHO; the inclusion of social media icons and interactive elements (eg, polls) on the PHP home page; and notification to PHP's existing listserv.

Please see Table 1 for a summary of methodologies, strengths, and recommendations for further work.

**Findings**

**Increase in Web site traffic**

From June 1, 2011, to May 31, 2012, the following increases in traffic occurred:

- Visits per month to the PHP Web site rose by 22% (from 1,597 to 1,941).
- Newsletter subscriptions rose by 22% (from 391 to 477 subscribers).
- Newsletter open rates were always above 30%, which was higher than any other industry served and monitored by Constant Contact.
- Downloads per month rose by 41% (from 316 to 444).
Social media interaction
At the end of the study year, the PHP Twitter account had 104 followers, and its Facebook page had 15 followers.

Responsiveness to current public health issues and needs
By monitoring multiple social media feeds and taking a thematic, interactive approach to distributing content, PHP staff found themselves better able to address information needs in the public health community and respond with resources.

For instance, after noticing heavy traffic following tweets and newsletter items regarding pediatric preparedness in healthcare, PHP staff was able to successfully solicit practices in this area, create a themed newsletter featuring practices about pediatric healthcare coalitions from multiple jurisdictions, and become part of a burgeoning conversation around this issue.

Response of the target audience
Prior to initiating a social media program, PHP staff researched best practices in digital communication and implemented these practices as part of its strategy. One of the most surprising parts of the program however, was the realization that public health planners use social media quite differently than do other professionals.

Use of social media by health agencies varies greatly by jurisdiction, but the following considerations had to be taken into account, while adjusting PHP social media use and expectations accordingly.

- Online communications may be controlled exclusively by a public information officer (PIO) with little to no communications involvement from planners or senior-level administrators.
- While most state and local health agencies manage a Twitter feed, few preparedness and response departments have an individual account. If they do, many use their individual accounts for disseminating emergency information (eg, evacuation notices), rather than for peer-to-peer networking or information exchange.
- Many health agency planners do not use Facebook for professional purposes, are prohibited from doing so, or have concerns about Facebook’s privacy protection.
- Federal and academic agencies specializing in disaster preparedness and response use social media regularly and interactively, seemingly with few of the restrictions that affect state and local agencies.

PHP adjusted its social media techniques to reflect these patterns, in many cases simply realizing that expecting huge increases in followers or substantial interaction via Twitter or Facebook from its target audience was unrealistic.

Creating a role for "communications brokers"
Because the target audience may not have the time or resources to use digital communications strategies, PHP staff viewed their role as serving as "communications brokers" — distributing curated content to an audience that had indicated such a need. The ethos behind PHP’s entire outreach strategy was to help state and local health agencies answer the question: "What great work am I doing right now that can be shared?" Given that health agencies face numerous obstructions to sharing and promoting their work, PHP used its digital strategy to fill this gap, while also creating a role for organizations to communicate noteworthy work for those who may be unable to do so.

As an example, a survey of users conducted before PHP began its social media campaign revealed that many Web site visitors used practices not for their stated purpose (ie, adaptation for or implementation in a jurisdiction), but as anecdotal evidence with which to influence decision-making in their agency. A follow-up survey conducted after the social media campaign had commenced...
found that users were still identifying the site’s influence on agency decision-making as a benefit of use. This identified a great need for information sharing and a national platform on which to accomplish this task.

Technical assistance and content curation
As a result of its content inventory, PHP was able to overhaul its social media strategy to reflect a thematic approach and use all digital platforms to focus on one theme (eg, creating healthcare coalitions focused on pediatric needs during disaster) for a specific period. Editorial calendars were created based on findings gleaned from the content inventory. This led to social media platforms acting as a de facto and easy-to-use Web site, serving up curated and accessible content around a single theme.

Using a thematic approach across social media platforms also helped identify content curation as a particular capability of PHP. Health agencies requested practices grouped on a relevant (or even urgent) theme, and PHP staff collected and distributed "packages" of content to anyone who requested them.

As an example, a state health agency planner, after being made aware of PHP’s social media efforts, requested practices that addressed how to establish alternate care sites. Within several hours, PHP staff were able to retrieve and send to her a collection of practices that met her needs.

Archival capacity
The field of public health preparedness and response changes quickly, and planners often find themselves responding quickly to emergent issues, concerns, or funding requirements. Promotion of or reflection on past work is often impossible.

As a result of PHP’s content inventory, staff identified a wealth of practices created by jurisdictions in 2006 and 2007, when funding priorities required extensive planning for healthcare worker shortages, alternate care sites, triage strategies, standards of care, and collaborations with healthcare systems.

Although these issues took a back seat to other emergent needs and priorities, the current public health funding climate has seen a return to many similar strategies, most notably public health and healthcare collaborations and standards of care. PHP staff realized that although the site and its accompanying outreach is intended to meet current needs, it also serves as a searchable archive for the extensive work that agencies have completed and that can be used to find new relevance or serve as resources for ongoing planning efforts. PHP is in the process of determining how to leverage this capability to best meet users’ needs and has recently developed a field guide to state and local practices that increased access to 2009-2010 H1N1 influenza vaccination.

Opportunities for transparency
PHP believes and uses as a guiding principle that public health agencies in all jurisdictions comprise hard-working people who care deeply about the lives and health of those living in their communities. These communities, however, may largely remain unaware of public health and its efforts to improve population health and quality of life. How one communicates, and the platforms used to explain what one does and why, affect how public health’s work reaches and is understood by communities.

Although its efforts are still in the early stages, PHP has seen social media and other opportunities for online interaction lead to greater transparency both between public health agencies (in the sharing and promoting of work) and between health agencies and the public (projects and their rationale are described, conversations are encouraged, and the public can see what public health planners truly do).
Conclusion

PHP’s digital communications initiative served to give users multiple access points to a difficult-to-use Web site, curated and made available content pertinent to perceived needs within a professional community, and brought greater information sharing and transparency to public health disaster preparedness and response work across many jurisdictions.

Although PHP is exploring funding options to sustain its site and outreach efforts, future priorities are likely to include refining editorial and technical assistance needs, using social media and communications tools to ensure that practice collection and review remains attuned to national priorities and emerging needs, partnering with national organizations to disseminate information, and establishing ways to continuously assess efforts and change techniques if possible.

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<th>Component</th>
<th>Strengths</th>
<th>Opportunities for growth</th>
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| Selection of Social Media Channels | • Increased awareness of the PHP Web site  
• Greater interaction with public health professionals and others interested in disaster preparedness and response  
• Real-time monitoring of and response to emergent public health concerns via the PHP Twitter feed | • Establish means to evaluate whether a channel needs to adapt to changing needs or be discontinued. In PHP’s case, Twitter had to adapt quickly to be effective.  
• Explore other social media platforms used for professional networking and information purposes, such as LinkedIn  
• Identify multiple ways in which PHP can interact with, facilitate, and contribute more widely to social media discussions |
| Selection of Appropriate Content and Editorial Planning | • The ability to observe changing public health priorities and respond accordingly  
• A completed content inventory and associated strategy that allowed for identification of major relevant themes in public health practice  
• An increased capacity to provide curated, accessible content to users as a “patch” to a difficult-to-use Web site | • Create capacity to maintain a comprehensive content inventory and plan for quarterly reflection on strategies related to the inventory  
• Identify ways in which PHP’s archives, especially practices having to do with healthcare collaborations and altered standards of care, can be made relevant to current public health concerns, and opportunities for promotion  
• Create thematic field guides to public health practice (eg, practices that increased access to H1N1 vaccine) |
| Branding                        | • Creation of a consistent visual identity across digital platforms                                                                                                                                            | • Identify opportunities for cross-promotion with agencies that have practices published on the PHP Web site                                                                                                              |
| Activities to Promote Awareness  | • Increased personal interaction with public health professionals who requested specially curated access to PHP’s collection of practices                                                                             | • Establish PHP’s capacity to provide individual technical assistance to health agencies and, if feasible, promote this service on the Web site and via social media |