



Riding the Mobile Wave

What Local Health Departments Need in order to Adopt Social Media and Mobile Health Technologies for Emergency Preparedness

UPMC Center for Health Security and the National Association of County and City Health Officials (NACCHO)

Executive Summary, February 2014

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Executive Summary

The American public's use of social media and mobile technologies has grown dramatically in recent years. While the public is increasingly using these platforms for day-to-day communications, most local health departments (LHDs) in the US are not regularly using these tools to receive information or push out communications to the public. Recent events such as the 2009 H1N1 influenza pandemic and Hurricane Sandy demonstrate the potential value of social media and mobile health technologies (mHealth) for hastening the speed of communicating vital emergency preparedness influenza pandemic preparedness and response messages. If LHDs could more quickly communicate critical preparedness information to the communities they serve, then adverse effects of disasters, such as lives lost and economic damage, could potentially be mitigated. This study analyzes what organizational factors LHD staff perceive as necessary to support their use of social media and mHealth. The lessons learned from this study can inform policymakers at the local, state, and federal levels of how to support LHDs in advancing their use of social media and mHealth for emergency preparedness. Lessons can also provide LHDs with insights as to how peer departments *in* other communities have overcome or managed obstacles hindering use of these platforms.

The UPMC Center for Health Security and the National Association of County and City Health Officials (NACCHO) produced this report to catalyze improvements in local health departments' ability to use social media and mobile technologies to improve preparedness efforts. We conducted 65 interviews with LHD staff across the country and analyzed existing data and studies on the use of social media and mobile technologies for disaster management. This report outlines organizational factors that enable or impede LHDs' ability to use social media and mobile health platforms, as identified through interviews with LHD staff, and puts forth a series of recommendations for local health practitioners and state and federal policymakers to support use of these platforms at the local level.



Findings: Main Factors Influencing LHD Use of Social Media and mHealth

In-house Capacity: *ability of both staff and the LHD as a whole (eg, other organizational components such as strategic plans and internal management) to effectively integrate social media and mHealth programs into their department's overall communication and emergency preparedness strategy.*

Primary factors that influence an LHD's in-house capacity to use and maintain social media and mHealth programs include the technical knowledge of staff and throughout the LHD as a whole, the amount of funding and number of staff specifically allocated to social media and mHealth efforts, and the availability and accessibility of hard resources and technical support.

Leadership Support and Policies: *implied or expressed support of leaders, in the LHD or at other government levels, to encourage the use of social media and mHealth, and the existence of specific rules or policies, formal or informal, regulating or encouraging the use of such technologies.*

Many LHD staff identified factors that influence the type of support they receive for using social media and mHealth, including support from their department leaders; internal policies at LHDs regarding social media and mHealth use; and local, state, and federal government policies encouraging the use of platforms.

Legal and Security Issues: *concerns around security of information and the application of legal guidance for mHealth and social media programs.*

Many LHDs identified legal and security issues that inhibit their use of social media and mHealth, including lack of clarity around the applicability of federal and state privacy laws, concerns about how to manage liability issues that can arise with platform use, and lack of understanding how security breaches should be managed.

Audiences: *intended and targeted audiences at which LHDs aim to direct programs, including those in different geographic locations and those considered vulnerable or at risk.*

Regarding the use of social media and mHealth to reach specific audiences, interviewees cited 3 primary factors: different platforms are sometimes better suited for different purposes; many LHDs lack the coordination and capability to use social media and mHealth for 2-way communication with various populations; and many LHDs may not have the resources necessary to use platforms to reach vulnerable populations.



Recommendations and Implications: Moving Forward in Policy and Practice

Actions for Local Health Practitioners

Assess internal baseline capacity and augment, as needed, with the support of external partners.

LHD leaders should take steps to better understand their department's baseline capacity to use social media and mHealth for emergency preparedness and identify external resources that could help fill gaps in staffing and funding. Health departments should also identify community-based organizations (CBOs) and academic institutions that can offer pro bono or low-cost services to fill staffing and training gaps, such as unpaid interns and contractual services.

Expand existing communication plans.

LHDs should integrate social media and mobile technologies into existing communication plans. As many interviewees emphasized, these platforms should not replace current communication mechanisms, but rather supplement current approaches to circulate information rapidly and to wider audiences.

Learn from existing practices at other LHDs: LHD staff should take steps now to engage with and learn from their colleagues at other LHDs.

As some interviewees noted, merely talking with colleagues in the neighboring county's health department or at a health department with visibly advanced efforts can help guide staff in developing programs and establishing policies.

Identify resources to inform health department policy development: LHDs can take steps to address legal and security concerns while waiting for concrete policy actions.

Health departments should be proactive in identifying resources, such as sample policies from other LHDs, guidance from other entities that details managing liability concerns for specific platforms, and pro bono or low-cost legal consultant services, to vet concerns and department actions.

Identify key audiences and understand how they communicate.

While use of social networking sites and mobile devices is generally widespread, LHDs must verify that targeted populations have access to these platforms to ensure they are effective communication mechanisms.

Increase coordination with CBOs.

LHDs often benefit from partnerships with CBOs that can circulate messages to specific communities on behalf of the health department or promote LHD social media accounts and mHealth programs. LHDs should therefore dedicate personnel and resources to building strong partnerships with CBOs that link to key communities, including vulnerable and at-risk populations, volunteers, hospice and home healthcare providers, and various age groups.

Support system interoperability among programs and jurisdictions.

LHDs should not only vet the information within their programs for credibility and subsequently use it to provide situational awareness, but they should also look to one another to share information during emergencies. Furthermore, development of mHealth programs that allow systems and devices to share data, whether within one LHD or among many, should be encouraged.

Actions for Policymakers at the Local, State, and Federal Levels

Promote the creation of an information exchange database.

As evidenced by numerous interviewee requests, a database or resource for LHDs to share examples of current efforts, funding sources, or successful uses and applications of mHealth and social media would be extremely useful for LHDs in identifying best practices and uses for different platforms. State and local officials should work to form or support the creation of such a

database to serve as a mechanism for sharing information among LHDs regionally.

Identify how to integrate local information sharing into a national-level system.

Federal agencies should also support creating a database at the national level that joins these local efforts and potentially includes other key stakeholders, such as nongovernment organizations and CBOs.

Support research to improve the evidence base for technology use.

While statistics indicate increasing and widespread use of social networking sites and mobile devices, LHDs lack the evidence base to demonstrate the role of these platforms in advancing public health activities, including emergency preparedness. Policymakers should explore ways to incorporate this needed research into efforts that are already being funded.

Develop methods to disseminate uniform messages.

State and local officials should take steps to improve information management. Interviewees generally emphasized 2 challenges when using platforms for emergency preparedness: managing numerous communication mechanisms for different populations and uncoordinated messages with other public officials. State and local officials should therefore take a more active role in developing and circulating pre-approved messages to local entities, including messages that are tailored for specific platforms, specific stages of emergencies, and specific populations.

Modify requirements for Public Health Emergency Preparedness (PHEP) Cooperative Agreements.

The Centers for Disease Control and Prevention (CDC) should modify PHEP requirements to mobilize local efforts to use social media and mHealth. As PHEP funds often inform LHD leadership decisions regarding resource

allocation and staff training, prioritization of these platforms in PHEP requirements can support local use. Moreover, as funding drives actions, revisions to PHEP requirements will encourage LHDs to use social media and mobile technologies as part of routine practice.

Revise public health preparedness capabilities.

CDC's Office for Public Health Preparedness and Response (OPHPR) should revise the public health preparedness capabilities used to provide national standards for state and local planning. Interviewees specifically suggested that the sections on emergency public information and warning and information sharing be revised to encourage use of new media, such as social media and mobile devices.

Circulate guidance to LHDs regarding the applicability of existing federal laws.

The Department of Health and Human Services (HHS) and other federal agencies, as appropriate, should clarify how and when laws such as the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule and the Freedom of Information Act (FOIA) apply to LHDs in relation to their use of social media and mHealth. Guidance should also direct LHDs to legal resources to verify compliance with laws.

Clarify how new technologies are regulated.

Some LHDs expressed confusion about to whether mobile applications and other mHealth programs may be regulated. Steps have been taken by the Food and Drug Administration (FDA) to regulate medical mobile applications, but it remains unclear if applications for public health and emergency preparedness will also be regulated. Federal agencies should clearly communicate to LHDs what types of technologies will be regulated and for what purposes.

Support resources to reach vulnerable and at-risk populations.

While partnerships with CBOs are important, it is imperative that LHDs do not rely solely on external entities to reach vulnerable and at-risk populations. Grants and policies targeting LHDs should enable health departments to use translation services and other resources. As many interviewees noted, lack of these resources inhibit their ability to develop population-

specific programs using new media platforms. Many LHDs aim to provide social media sites, short message service (SMS) programs, and mobile applications in different formats to serve non-English-speaking, deaf, and blind populations, but they need support to do so.

Summary of Key Findings and Recommendations

FINDINGS			RECOMMENDATIONS	
Key Factors	Influences	Suggestions/Requests	LHDs	Policymakers
In-House Capacity	<ul style="list-style-type: none"> • Staff knowledge • Funding • Resources and IT support 	<ul style="list-style-type: none"> • Training • Information sharing • Industry collaboration 	<ul style="list-style-type: none"> • Assess capacity and augment with external support • Expand communication plans 	<ul style="list-style-type: none"> • Create info exchange database • Integrate local information sharing into national system
Leadership Policies and Support	<ul style="list-style-type: none"> • Support for mHealth • LHD policies to support use • Local, state, federal policies to support use 	<ul style="list-style-type: none"> • Share best practices • Build evidence base • Share internal policies • State and federal encouragement 	<ul style="list-style-type: none"> • Learn from other practitioners 	<ul style="list-style-type: none"> • Learn from other practitioners
Legal and Security Issues	<ul style="list-style-type: none"> • Applicability of federal laws • Liability concerns • Security impediments to expansion 	<ul style="list-style-type: none"> • Federal guidance • Public/private support for managing liabilities 	<ul style="list-style-type: none"> • Identify resources for policy development 	<ul style="list-style-type: none"> • Provide guidance on applicability of federal laws • Clarify regulation of new technologies
Audiences	<ul style="list-style-type: none"> • Purpose-specific platforms • Limited capacity for 2-way communication • Specific needs of vulnerable populations 	<ul style="list-style-type: none"> • Improved collaboration with CBOs and other external organizations • Integrate mHealth and social media into communication plans 	<ul style="list-style-type: none"> • Identify key audiences and how they communicate • Coordinate with CBOs • Support program and jurisdiction interoperability 	<ul style="list-style-type: none"> • Support resources to reach vulnerable and at-risk populations



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