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# What's in a username? Finding local health departments on Twitter

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# What's in a username? Finding local health departments on Twitter

## ABSTRACT

Social media platforms such as Twitter may be useful for local health departments (LHDs) in providing the essential service of educating and informing constituents.<sup>1</sup> However, health departments have relatively few Twitter followers overall.<sup>1</sup> One of the challenges that may be associated with following LHDs on Twitter is knowing how to find an LHD Twitter feed. With no suggested or required conventions for LHDs adopting social media, practitioners are left to independently develop their name and description, resulting in much variety. This report examines the names and descriptions for LHDs using Twitter and uses the Twitter people search function to identify which health departments can be found by searching for the health department name. Finally, we examine the relationship between being found through the Twitter people search and the number of followers for an LHD. We conclude with suggested LHD naming, description, and use practices for Twitter.

### Keywords

local health departments; social media; Twitter

### Cover Page Footnote

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What's in a username? Finding local health departments on Twitter

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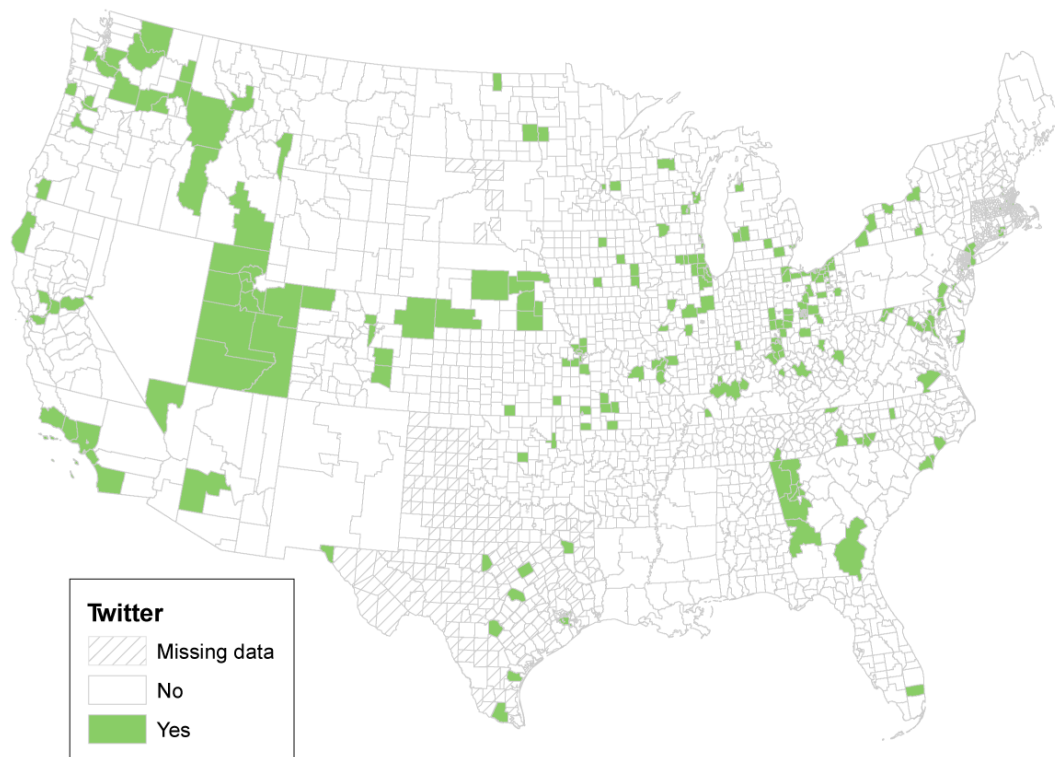
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Social media platforms such as Twitter may be useful for local health departments (LHDs) in providing the essential service of educating and informing constituents.<sup>1</sup> However, health departments have relatively few Twitter followers overall.<sup>1</sup> One of the challenges that may be associated with following LHDs on Twitter is knowing how to find an LHD Twitter feed. With no suggested or required conventions for LHDs adopting social media, practitioners are left to independently develop their name and description, resulting in much variety. This report examines the names and descriptions for LHDs using Twitter and uses the Twitter people search function to identify which health departments can be found by searching for the health department name. Finally, we examine the relationship between being found through the Twitter people search and the number of followers for an LHD. We conclude with suggested LHD naming, description, and use practices for Twitter.

## METHODS

Using NodeXL and a list of 232 LHDs with Twitter (see Figure 1), we gathered the Twitter usernames, user description, number of followers, number of days on Twitter, and number of tweets for each LHD as of June, 2013. We merged this data with a list of health department names from the National Association of County and City Health Officials (NACCHO) LHD directory (<http://www.naccho.org/about/lhd/>). We also added variables associated with LHD capacity from the NACCHO 2010 Profile Study, including jurisdiction population, spending per capita, and employment of a public information specialist. These variables were selected because they were found to be significantly associated with Twitter adoption in a forthcoming manuscript.<sup>2</sup>

Figure 1. Location of local health departments with Twitter accounts as of spring, 2013.



Usernames were first classified as acronyms (initials only), full words only, or a combination of initials, words, and abbreviated words. Usernames in each of the three categories were examined separately and described by similar features.

User descriptions were coded for whether or not they included the full LHD name (Yes/No). In addition, the full name of each LHD was entered into the people search on Twitter to see if the LHD could be found using the search tool. People search is used to find specific Twitter users when the Twitter username is unknown. Usernames and descriptions were compared for those found and those not found. We also recorded whether or not each account was verified by Twitter (Yes/No). Twitter identifies accounts that have an authentic identity and uses a “verified badge” to indicate an account is authentic and is therefore a legitimate source of information. Finally, we developed regression models to examine relationships among LHD capacity, type of username, finding an LHD using Twitter people search, and the number of Twitter followers for an LHD.

## RESULTS

### LHD Twitter naming conventions

Of the 232 LHD user names, 46 (19.8%) were words only, 33 (14.2%) were acronyms only, and 153 (65.9%) were a combination. Of the 46 that were words only, 40 started by describing the geographic location of the LHD and added the word “health.” For example, the Yolo County Health Department user name is yolohealth. An additional four LHDs used “healthy” followed by their geographic location. For example, the Detroit Health Department user name is healthydetroit. Of the remaining two health departments with word-only names, one used healthy but did not indicate where they were located (myhealthycounty) and one used location but not health or healthy (peopriaprepere).

The 33 LHDs using acronyms tended to include “hd” (n=22), with most (n=20) including it at the end of the acronym. For example, the Benton-Franklin Health District uses the acronym bfhd while the Kanawha-Charleston Health Department uses the acronym kchdmd. The LHDs with acronyms not incorporating “hd” each used different health-related initials including “ph” for public health (n=6), “hhs” for *health and human services* (n=1), “doh” for *department of health* (n=2), “hc” for *health center* (n=1), and “h” for *health* (n=1).

Like the words-only group, the 153 that used a combination typically had an indicator of location and an indicator of health in their username. Several (n=25) abbreviated county as “co,” but otherwise included a full word representing location and added “health” to the end. For example, Boulder County Public Health has a user name of bouldercohealth. A similar number of LHDs (n=29) used “hd” in conjunction with an indicator of location, for example, the DuPage County Health Department adopted the user name of dupagehd. Another large group of LHDs (n=22) abbreviated their location and included “publichealth.” For example, the El Paso City-County Health and Environmental District chose the username eppublichealth. Fourteen used “healthdept” with some full (e.g., wacohealthdept) or abbreviated (e.g., whealthdept) indicator of location. With the exception of a few LHDs that did not incorporate health into their username, the rest used a variety of abbreviations for location and to indicate they were a health department (e.g., cocohealth, concordph).

Seventy-nine of the Twitter accounts included the full LHD name as listed in the NACCHO directory as part of the description, another 19 included the full LHD name but out-of-order. The remaining 134 LHDs did not include the full health department name, only included part of the name, or included a name that did not match the name as shown in the NACCHO directory.

Finally, some sources recommend adopting Twitter usernames that are short because they take up fewer characters, allowing others to retweet more easily. Words-only usernames were 13.2 (s.d.=1.2) characters on average, initials-only were 5.1 (s.d.=.8) characters, and combination usernames were 12.1 characters (s.d.=2.3).

To determine whether characteristics of an LHD were associated with having a specific type of username, we used multinomial logistic regression to predict type of username (words only, initials only, or combination) using characteristics of LHDs associated with Twitter adoption:<sup>2</sup> jurisdiction size, spending per capita, and employing a public information specialist. We found no significant relationship between any of these characteristics and the likelihood of selecting a specific username type.

### Searching for LHDs on Twitter

According to Twitter documentation, the people search engine has a preference for finding Twitter accounts that: (1) have the name and short biography fields filled in, and (2) are active. Only 16 of the 232 did not have the short biography filled in and none left the name field blank. Account activity ranged from 0 to 6874 total tweets and from 0 to 4.0 tweets per day. Of the 232 LHDs, only 100 (43.1%) were found using the Twitter people search using the full LHD name. Significantly more than expected with the full LHD name in their description (69.0%) were found in the people search; while significantly fewer than expected of those without the full name included in the description (31.0%) were found in the people search ( $\chi^2=51.6$ ;  $p<.05$ ). LHDs found by the people search had a significantly higher ( $t=2.7$ ;  $p<.05$ ) number of total tweets than LHDs not found (806 v. 437 tweets). The same was true for average tweets per day; accounts found in the search averaged .64 tweets per day compared to .38 tweets per day for accounts not found ( $t=2.9$ ;  $p<.05$ ).

Finally, type of username was significantly associated with being found in the people search ( $\chi^2=12.5$ ;  $p<.05$ ), with the usernames comprised of two words being found significantly more often than expected. Only four of the 232 LHDs were verified: chipublichealth, phlpublichealth, fairfaxhealth, and nychealthy, so we did not further explore the influence of Twitter verification on finding LHDs on Twitter.

A logistic regression model including username type, full name in the description, and tweets per day found all three to be significant predictors of finding an LHD Twitter account with the Twitter people search. Finding an LHD using the people search was 8.6 times more likely if the LHD included the full name in the description field (OR: 8.6; 95% CI: 4.6-16.1) compared to those that did not include the full name. For every one unit increase in tweets per day, an LHD was 2.0 times more likely to be found (OR: 2.0; 95% CI: 1.2-3.2). Finally, LHDs using initials-only were 80% less likely to be found (OR: .2; 95% CI: .1-.6), while those using a combination were 60% less likely to be found (OR: .4; 95% CI: .2-.8) than words-only usernames.

### Twitter searches and followers

Controlling for LHD characteristics associated with the number of Twitter followers in a previous study<sup>2</sup> (jurisdiction population, tweets sent, time since adopting Twitter, spending per capita, and employing a public information specialist), we used linear regression to test whether being found through the people search was associated with having more followers. Although the relationship between being found and the number of followers was positive, it was not significant. So, there is no significant relationship between being found through the Twitter search and the number of followers for an LHD Twitter account after controlling for LHD characteristics.

## CONCLUSIONS AND RECOMMENDATIONS

We found that Twitter accounts including the full department name in the description, tweeting more often, with a words-only username were more likely to be found by the Twitter people search. However, being found on the Twitter people search was not significantly associated with having more followers after controlling for other LHD characteristics.

To increase the likelihood of being found by constituents and colleagues, LHDs might: (1) change the username to a words-only combination of health and location (e.g., monrohealth), (2) check their Twitter account and fill in missing information in the name and short biography fields, including adding the full health department name to the description, and (3) increase their Twitter activity.

Being more active on Twitter is the most time consuming of these strategies and has been shown<sup>2</sup> to be associated with having more followers in addition to increasing the likelihood of being identified by the people search. There are ways to expand tweeting activity without extensive new time commitments. If an LHD does not have staff time to develop and tweet original information, following another LHD or an organization like the CDC or NACCHO and retweeting their tweets a few times per week would keep the account active, increasing the likelihood of being found and gaining followers.

Recommendations from other sources include adopting short usernames because they take up fewer characters. Given the tweet 140 character limit, this is especially important when tweets are retweeted, allowing followers to retweet without editing (<http://www.dummies.com/how-to/content/how-to-choose-a-good-twitter-username.html>).

Others also suggest that strategic use of a filename for the picture (avatar) representing a Twitter account can increase the ability of a search engine to find the account, and a direct link to other organization websites may increase traffic flow between related sites (<http://www.twitip.com/how-to-turn-your-twitter-profile-page-into-an-seo-masterpiece/>). Twitter has the potential to connect LHDs with their constituents and others; by making LHD Twitter accounts easier to find, LHDs may be more visible to constituents and peer organizations.

Finally, for readers interested in other aspects of LHD Twitter adoption and use, there are three additional recommended sources of information. First, one of the authors (Harris) has created a Twitter list including all 232 LHDs that have adopted Twitter. The list can be viewed by anyone at <https://twitter.com/jenineharris/local-health-departments>. For those readers with Twitter accounts, the list can be subscribed to for easy access when logged in to Twitter. Second, an examination of LHD tweets about diabetes by Harris and colleagues was recently published in the Centers for Disease Control and Prevention online journal *Preventing Chronic Disease* and is available for free here:

[http://www.cdc.gov/pcd/issues/2013/12\\_0215.htm](http://www.cdc.gov/pcd/issues/2013/12_0215.htm).<sup>1</sup> Finally, a manuscript examining characteristics of LHDs that have adopted Facebook and Twitter is forthcoming in the *American Journal of Public Health*.<sup>2</sup>

#### SUMMARY BOX:

**What is Already Known about This Topic?** Local health departments nationwide are using social media like Twitter to communicate health messages, but so far most have few followers.

**What is Added by this Report?** Local health department Twitter accounts are not consistently named or described on Twitter and can therefore be difficult to identify. Characteristics of Twitter usernames and descriptions were associated with being able to find an LHD through the Twitter search engine. However, finding an LHD through the search engine was not associated with having more followers. Being active on Twitter (i.e., tweeting) was associated with being found on Twitter and, in a previous study, with having more followers.

**What are the Implications for Public Health Practice, Policy, and Research?** This report provides suggestions for Twitter names, descriptions, and activities that can increase the likelihood that Twitter users can find health departments with a Twitter presence.

#### REFERENCES

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