Lessons Learned From Evaluating the Effectiveness of the Private Water Network

Editor’s Note: The National Environmental Health Association (NEHA) launched the Private Water Network (PWN) in partnership with the Centers for Disease Control and Prevention (CDC) and the National Network of Public Health Institutes in 2019. The mission of PWN is to 1) build a sustainable community for those working to support private water programs; 2) connect them with their peers to share experiences, insights, and resources, and to gain access to timely and relevant guidance for existing and emerging issues; and 3) build capacity to do the work more effectively and efficiently to protect the public’s health from contaminants in private water sources. PWN is supported by CDC.

The conclusions in this column are those of the author(s) and do not necessarily represent the official position of CDC.

Background

Prior to the launch of the Private Water Network (PWN), there was no comprehensive, active resource for peer learning and information exchange for environmental health specialists and public health workers who serve communities with private drinking water sources and systems. To address this gap, the National Environmental Health Association (NEHA) launched PWN in 2019 through a partnership with the Centers for Disease Control and Prevention and the National Network of Public Health Institutes.

PWN is a virtual community of practice for public health professionals and safety specialists working to protect the public’s health from contaminants in private drinking water sources. PWN was launched in December 2019 to serve two purposes: 1) to gather, organize, and share all existing and relevant resources regarding private water; and 2) to build an online resource to support future stakeholder goals. Currently, PWN serves over 150 members. Through PWN, a series of expert discussion forums, webinars, newsletters, roundtable talks, and Twitter chats have been held to foster membership engagement. Furthermore, PWN hosts a resource repository on its virtual platform with more than 250 resources on private water.

In December 2020, NEHA conducted an evaluation of PWN to assess if it was meeting the goals of the target audience. The evaluation highlighted membership attitudes toward PWN engagement opportunities, resources, and platform accessibility.

Methods

NEHA fielded a PWN evaluation survey from December 4, 2020 through January 25, 2021. The aim of the survey was to assess how PWN is implemented, including its reach, the ease of participation in its activities, and the usefulness of tools provided. The outcome evaluation included an assessment of member attitudes, knowledge, and skills related to private water. The survey was sent to all PWN members through a PWN newsletter in December. Furthermore, the survey was promoted during the “A Year Since Launch” event series that celebrated the 1-year anniversary of PWN. The event series included a webinar, roundtable discussion, blog post, and Twitter chat.

Results

NEHA received a total of 44 responses from public and environmental health personnel working across various sectors of the field such as governmental public health agencies (e.g., local, state, federal, tribal, territorial), academia, industry, and nonprofit organizations. Of the 44 PWN survey respondents, 45% (n = 20) were PWN members and 55% (n = 24) were not members of PWN. The survey respondents were asked to indicate the state or territory in which they work (Figure 1).

Survey Respondent Demographics for Private Water Network Members

Approximately 65% of PWN members who completed the survey have been with the PWN for ≥9 months. Nearly 20% of the members who took the survey had been PWN members for <3 months, 10% had been members between 3 and 6 months, and
approximately 5% had been members for 6–9 months.

According to the survey, many PWN members work within a state or territorial health department (40%). A few (20%) were with an independent nonprofit organization or nongovernmental organization. Of those respondents that selected “Other,” two were retired, one worked for a state environmental health department, and one identified their work as academic. Nearly 10% of the respondents work for a city or county health department. The remainder of the survey respondents (10%) work at a federal agency.

**Member Satisfaction and Perceived Value**

Overall, the PWN members expressed positive feedback related to the benefits of PWN and the knowledge gained through their membership. Figure 2 illustrates member attitudes toward the perceived benefits and value of PWN.

Furthermore, survey respondents were asked to share what they have been able to achieve or implement because of their participation in PWN. Several respondents indicated that membership in PWN had given them a clearer understanding of private water issues. Some also highlighted that they were able to share the relevant information they learned with others through the platform. For example, a few people shared resources with other staff and one person shared resources with private landowners. A couple of people indicated that learning and sharing information through PWN enabled them to find others they were not aware of who were experiencing similar problems.

**Access and Member Engagement**

Generally, PWN members agreed PWN increased their access to other peers and to resources related to private water sources. Figure 3 highlights member attitudes toward engagement activities and access to information on private water issues through PWN.

Survey respondents were asked to indicate which PWN offering they found to be most engaging. The most utilized PWN offering is the PWN newsletter (71%), followed by attending a flash webinar (59%) and listening to flash webinar recordings (53%). The least used PWN offerings are the discussion forum (12%) and posting an item to the resource library (12%). Many PWN members commented they had limited time to explore and utilize the offerings on PWN. In addition, others explained they had not utilized the offerings available because they were new to the network or had just joined.

More specific feedback on PWN suggests members were satisfied with the offerings
and agreed they provided opportunities to learn about different topics, share information, and access resources. Figure 4 illustrates these data. Notably, of the members who utilized each offering, 80% agreed the resource library provides access to replicable tools and resources. Close to three quarters of members (71%) agreed they can easily find what they need in the resource library. Similarly, 71% of the PWN members agreed that the PWN Ask the Expert sessions and the PWN flash webinars provide opportunities to learn from subject matter experts. A slightly smaller percentage of PWN members (69%) agreed that the PWN newsletter keeps them informed of events, emerging issues, and resources. Lastly 60% of the PWN members agreed the discussion forum is a useful mechanism for sharing with and querying peers.

Private Water Network Nonmember Feedback

Nearly three fourths of nonmembers who completed the survey work at a health department in either a city or county (58%) or a state or territory (13%). An overwhelm-
ing majority of nonmembers recognized the value of the PWN with 86% strongly agreeing or agreeing that PWN is a valuable resource. Nonmembers do have access to PWN webinars, Twitter chats, panel sessions, and roundtable discussions. They do not have access to the PWN resource library, discussion forum, and newsletter. Most nonmembers attended a PWN flash webinar (77%) or listened to a recording of a PWN flash webinar (35%). Of those who participated or listened to a PWN flash webinar, 89% strongly agreed or agreed that the webinars provide opportunities to learn about topical issues and pose questions to subject matter experts.

Nonmembers commented they had just learned of PWN and many noted they planned to research it more. Nonmembers also highlighted how they were applying the knowledge gained from PWN. For example, one nonmember commented that they were able to answer people’s questions better due to information from PWN and another nonmember applied their knowledge for private well consultation. Additionally, one nonmember applied their knowledge of testing and treatment to their own home well water. An encouraging data point is that 100% of nonmembers who took the survey indicated they will continue to participate in PWN.

Overall Reflections and Future Directions

The survey asked for respondents to suggest improvements to PWN. Survey respondents had just a few suggestions for improvement. One member indicated that online information should be more accessible and another preferred longer discussions on topics. One nonmember suggested more online webinars with common issues such as arsenic. One member suggested that PWN include more resources on groundwater surveillance and monitoring. NEHA has already begun addressing these improvements by switching the online community platform provider to make PWN more accessible and easier to navigate.

Overall, PWN members and nonmembers who completed the survey had a positive experience participating in PWN. This finding is most evident in their intent to continue participating in PWN.

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