Communities of practice foster collaboration across public health

Mamie Jennings Mabery, Lynn Gibbs-Scharf and Debra Bara

Abstract
Purpose – The complexity and responsibilities of public health make collaboration across multiple levels of government critical. The Centers for Disease Control and Prevention (CDC) effectively uses communities of practice (CoPs) to bring its staff together with partners to share, learn, and address public health problems. This paper aims to focus on CoPs.

Design/methodology/approach – The paper assesses the value of CoPs to individual members, their organizations, and their public health domains; assesses whether the CoP Program has improved CDC’s relationship with participants in various CoPs; and identifies barriers to participation or success factors that could be applied to the development of new CoPs. Responses from a random sample of active CoP members were analyzed using qualitative data analysis software to identify themes and answer research questions.

Findings – The results reveal clear benefits to individual members, their organizations, and public health disciplines including daily work efficiencies, expanded infrastructure, and enhanced relationships between CDC and its public health partners.

Research limitations/implications – This qualitative research analyzed a small number of communities of practice spanning their launch through year 2; further study of a larger sample of public health CoPs, including sustainability factors, would build on this case study’s implications.

Practical implications – Public health practitioners seeking a collaborative approach to problem solving will find in this study some useful lessons learned from CDC; readers will be introduced to CDC’s CoP Resource Kit and a public health collaboration portal, phConnect.

Originality/value – Well-facilitated, member-driven, and highly participative CoPs are valuable tools for fostering collaboration essential to improving the public health system, and should be used more broadly across public health.

Keywords Collaboration, Communities of practice, Informatics, Public health, Social capital, United States of America, Critical success factors

Paper type Case study

Introduction
By its very nature, public health practice is a collaborative enterprise (Wholey et al., 2009). Ten public health services are considered essential:

1. monitoring health;
2. diagnosing and investigating;
3. informing, educating, and empowering;
4. mobilizing community partnerships;
5. developing policies;
6. enforcing laws;
7. linking to and providing care;

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8. assuring a competent workforce;
9. evaluating; and
10. performing research (Core Public Health Functions Steering Committee, 1994).

Provision of these services requires expertise in education, epidemiology, communications, information technology, data management, outreach, and health promotion. This breadth of responsibilities and range of disciplines required to perform public health services effectively across multiple levels of government makes collaboration with an array of partners critical. However, public health practitioners acknowledge that sharing knowledge and collaborating to solve problems are challenging because the public health enterprise is complex, resources are inadequate, and authority and responsibility vary across geographic boundaries (Committee for the Study of the Future of Public Health, 1988; Committee on Assuring the Health of the Public in the 21st Century, 2002).

Historically, to protect the health of the public and effectively perform the ten essential services, public health agencies have to interface with partners in many sectors. In the health care sector, the exchange of information using electronic health records and disease registries has required a greater emphasis on the collaborative design and development of interoperable information systems. In 2004, CDC launched the Public Health Information Network (PHIN), an initiative to develop national standards for public health interoperability and to assist state and local public health agencies in adopting and implementing these standards (Loonsk et al., 2006). At that time, CDC relied heavily on more conventional methods of working with partners through organizational hierarchies. These methods led to difficulty in harnessing fully the collective knowledge from across the public health system to develop broadly adoptable processes and products. A grass-roots effort in 2006-2007 to use a community of practice (CoP) to learn about and implement vocabulary standards in public health systems showed promise as a way for public health practitioners within PHIN to share, learn, and collaborate. This Vocabulary CoP, composed of CDC staff and their state and local partners, was not only learning together, but also developing new terminology essential for public health information exchange. In 2008, CDC established a Communities of Practice Program (CoPP) to begin to use the CoP approach more broadly to re-engage additional PHIN stakeholders in communities. The goals were to harness internal and external stakeholders’ collective expertise, understand and document the assets and challenges in key informatics areas, and work toward collaborative solutions for common problems.

A CoP is a group of people who share concerns, problems, or passion about a topic and seek to deepen their knowledge and expertise through ongoing interactions (Wenger et al., 2002, pp. 4-5). Cognitive anthropologists Jean Lave and Etienne Wenger promoted the term “community of practice” in the 1990s but noted that this type of collaborative group has existed for as long as people have been learning and sharing their experiences through activities such as mentoring, apprenticeship, and even storytelling (Lave and Wenger, 1991). A CoP can develop out of the members’ common interest in a particular area or a need to gain knowledge in a specific field to solve problems. Through information sharing and group experiences, members learn from one another and develop personally and professionally.

CoPs are usually self-organized but sometimes are initiated and facilitated by sponsoring organizations (Wenger, 1998b, p. 8). In CDC’s case, the agency decided to launch CoPs at the 2008 PHIN Conference in an effort to collaborate more effectively with partners. By definition, to collaborate is to work together, especially in an intellectual endeavor, and often with an entity or person with whom you are not immediately connected (see www.merriam-webster.com/dictionary/collaboration). The rational for launching the CoPP at CDC was that staff from geographically dispersed, unconnected organizations, such as those focused on improving public health, are particularly well suited to working jointly toward solutions to problems that are common across the public health system.
In 2008, the CoPP launched CoPs in public health informatics areas key to the success of PHIN. Using the Vocabulary CoP (forerunner to the Vocabulary and Messaging CoP examined in this study) as a model, these CoPs were launched either at the request of public health professionals already working in the field (self-initiated) or by the CoPP within the CDC informatics center (organization-initiated). The initial organizational structure of each CoP included leadership by a CDC subject matter expert and an expert in the public health field, members who were recruited by CDC staff. These member leaders were asked to help a designated CoPP staff liaison plan and launch each CoP. Leaders willingly assumed these roles, their incentive being their ability to do their day-to-day jobs better and make an impact in their public health informatics field. These CoP leaders were joined within the first few months by other planning team members with varying levels of subject matter expertise, technical skills, and collaborative abilities to help grow the CoPs.

Successful CoPs generally demonstrate a transparent, non-judgmental sharing of challenges, failures, and successes to build the trust, openness, and cooperation necessary for members to ask challenging questions and deal with disagreement as they tackle tough issues (Wenger et al., 2002, p. 37). To promote these attributes, the CoPP, working with the informatics CoPs leaders, designed a governance structure to enable all members to voice their needs and to share in decision-making and work to be done. This structure, formalized in a charter developed by the members over six months, allowed self-governance with rules of engagement and operating principles agreed upon by all the members (Saint-Onge and Wallace, 2003, p. 39). A Council was established that consisted of two representatives from each CoP. Members of the Council provided guidance to the CoPs and suggestions for improvement to the CoPP. Knowledge-sharing processes within and across the CoPs included regular conference calls and webinars, use of listservs and phConnect (a web-based collaboration platform), planning team and task group calls, and convening at the annual PHIN conference and other conferences specific to the CoP domain. Members shared their work with the larger public health informatics arena through posters, presentations, educational offerings, topic-specific virtual meetings, and web and phConnect postings.

The benefits of participating in a CoP (Table I) can be tangible, such as resolving a problem by learning from what someone else has done, or intangible, such as experiencing a sense of belonging through identification with a cohort of people who are dealing with similar issues. The value of learning and working within a community is recognized on three hierarchical levels: the individual member, the member’s organization, and the CoP domain. Participation in a CoP also provides professionals working in a field with a unified and influential voice for engaging with other programs, groups, or stakeholders.

Measuring the success of community collaboration is challenging (Braithwaite et al., 2009, p. 162). Knowledge and skills gained by an individual in the CoP may not be readily

<table>
<thead>
<tr>
<th>Table I</th>
<th>Benefits of communities of practice</th>
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<tbody>
<tr>
<td><strong>Members</strong></td>
<td><strong>Organizations</strong></td>
</tr>
<tr>
<td>Continual learning and professional development</td>
<td>Faster, less costly retrieval of information and reduced learning curves</td>
</tr>
<tr>
<td>Access to expertise</td>
<td>Knowledge sharing and distribution</td>
</tr>
<tr>
<td>Improved communication with peers</td>
<td>Coordination, standardization, and synergy across organizational units</td>
</tr>
<tr>
<td>Increased productivity and quality of work</td>
<td>Reduced rework and reinvention</td>
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<td>Networking for staying current in the field</td>
<td>Innovation</td>
</tr>
<tr>
<td>Sense of professional identity</td>
<td>Benchmarking against and influencing industry standards</td>
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<tr>
<td>Enhanced professional reputation</td>
<td>Alliance building</td>
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Source: Adapted from Wenger et al. (2002, p. 16)
apparent or easily captured, except anecdotally, and organizational impacts, though perhaps shared formally within the community, are difficult to benchmark. The long-term effect on improvements in a domain such as public health, given the many variables at work over time, is difficult to clearly identify as resulting specifically from community collaboration.

In 2010, the Public Health Informatics Institute (PHII) was asked by CDC to evaluate four of the communities that had been launched in 2008 to document successes and challenges, inform CDC’s CoP planning, and assist with continuous improvement in CDC’s support of its partners. The goals of the qualitative evaluation were to:

- assess the impact of participation in one of four CoPs, i.e. Communications and Alerting, Laboratory Messaging, Vocabulary and Messaging, and InfoLinks (Health Information Exchange);
- assess whether the CoPP had improved CDC’s relationship with participants in various CoPs; and
- identify themes across the four CoPs that might reveal barriers to participation or success factors that could be applied to developing new CoPs.

**Methods**

The CoPs selected for evaluation were the four communities supported by the CDC CoPP at the end of its second year (2010). At the outset of the project, CDC developed a list of active members for each of the four CoPs being evaluated. “Active” members, ranging from 34 to 84 in number and representing 25 percent to 75 percent of total membership, were defined as those who were registered in one of the four communities on the phConnect collaboration portal. Of the four, the Communications and Alerting CoP and the InfoLinks CoP targeted CDC partners for membership, while the Laboratory Messaging CoP and the Vocabulary and Messaging CoP targeted both partners and CDC staff. This study was designed to determine expectations, outcomes, successes, and limitations in these peer communities, regardless of whether they were CDC staff or CDC partners.

A PHII evaluator stratified each active member cohort on the basis of CDC or non-CDC member affiliation and selected a random sample from each CoP to interview (Table II). The evaluator sent personalized invitations via email asking these 199 CoP members to participate in a telephone interview. In all, 37 CoP members agreed to participate in interviews: ten from the Communications and Alerting CoP, ten from the Laboratory Messaging CoP, eight from the Vocabulary Messaging CoP, and nine from the InfoLinks CoP. Each telephone interview lasted about 30 minutes. The evaluator followed a structured interview guide developed for the project, took notes while audio-recording each interview, and then wrote a detailed summary of each interview. Content analysis of each interview summary was conducted using qualitative data analysis software (Ethnograph v6.0) to identify themes and answer research questions.

The interviews were designed to answer the following questions:

- How do members perceive the purpose of the CoP to which they belong?
- To what extent is each CoP meeting member expectations?

<table>
<thead>
<tr>
<th>CoP being evaluated</th>
<th>Number of active members in CoP</th>
<th>Number of active members interviewed</th>
<th>Number of CDC members interviewed</th>
<th>Number of non-CDC members interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications and Alerting</td>
<td>82</td>
<td>10</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Laboratory Messaging</td>
<td>45</td>
<td>10</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Vocabulary Messaging</td>
<td>37</td>
<td>8</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>InfoLinks</td>
<td>34</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>37</td>
<td>5</td>
<td>32</td>
</tr>
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</table>
What type(s) of outcomes and benefits are associated with each CoP?
What are the key success factors for effective CoPs?
What factors limit participation in the CoP?

Results

Although responses varied, several themes emerged that spanned all CoPs. Respondents in each of the four communities indicated that they were clear about the purpose of the community, benefited from participation, expanded or maintained their professional network, and improved their relationship with CDC. Several common themes emerged from the interviews:

CoP members were generally quite clear about the purpose of their CoP, and for all four communities, the primary reason for joining was the relevance of the CoP to its members' job responsibilities.

CoP members readily acknowledged that participation in the CoPs provided benefits not only to them as individuals but also to their agencies and organizations. Many times, the benefit to the agency or organization was described as resulting from the efficiencies gained from participating in a CoP — whether as a result of “not needing to reinvent the wheel” or being able to take advantage of document repositories and other resources that helped members become more proficient at their jobs.

When asked to identify the benefits to the public health system from their participation in the CoP, respondents most frequently identified the CoP's role in helping them enhance public health informatics and further develop the public health infrastructure.

Although developing and strengthening professional connections was predicted by CDC to be an important benefit identified by CoP members, many interviewees across the four CoPs indicated that they already knew many of their fellow CoP members through involvement in other professional initiatives and projects.

Lack of time and competing priorities were the primary barriers to CoP participation. Many CoP members reported being members of multiple CoPs and work groups and, as a result, lacked sufficient time to fully participate in the CoP.

Members of all four communities strongly agreed that the CoPs have been highly successful in enhancing the relationship between CDC and its public health partners.

Communications and alerting CoP

Interviewees in the Communications and Alerting (CA) community generally agreed on the purpose of the CoP, which they were quick to note was to support information sharing among members. Most said the main reason for joining the CA CoP was that it was closely tied to their job responsibilities. About half of the interviewees were not aware of knowledge products produced by the community, but they acknowledged the CoP’s document repository or mentioned collaborative work, such as the alerting standards for outbreaks and other emergency situations, that support their daily work.

The professional connections made by CA CoP members benefited both them individually and their parent organizations as well. Several interviewees indicated that the connections enabled via the CoP made it easier for them to do their jobs without “duplicating mistakes others have already made”. They also indicated that their parent organizations benefited from the efficiencies associated with not starting projects from scratch and from being able to obtain alerting advice and guidance quickly from fellow members. CoP members generally concurred that the relationship between CDC and the participants had been strengthened considerably as a result of the CA CoP. When interviewees were asked to identify the greatest benefit(s) from participating in the CoP, most comments focused on benefits related to information sharing and enhancing their knowledge within the communications and alerting domain. Although a guide for new state Health Alert
Network coordinators had been developed collaboratively by the CA CoP members in 2010, the document was not identified as a knowledge product by interviewees.

Overall, CoP members interviewed agreed that the CA CoP was highly successful. Critical success factors cited by interviewees included time and resources invested in the CoP, a feeling of camaraderie among CoP members, and the timing of the CoP launch.

**Laboratory messaging CoP**

Members of the Laboratory Messaging (LM) CoP agreed that its purpose was to facilitate information sharing across the existing US laboratory and epidemiology groups and to enhance the collective knowledge of standards and messaging. The most commonly cited reason for becoming a member of the LM CoP was the relevance of the LM CoP’s focus to their employment (laboratory job responsibilities). Several interviewees mentioned that participation in the CoP was critical to their job performance and that being part of the CoP helped them “keep up with all that is happening in the laboratory and messaging domain”.

When asked about whether they recalled any knowledge products that had been developed by the LM CoP, only two of ten interviewees reported being aware of such products. Although most interviewees were not aware of knowledge products produced by the CoP, many reported having used knowledge products developed elsewhere, such as disease-specific messaging implementation guides, after learning about the products through the LM CoP.

More than half the LM CoP interviewees reported making extremely valuable professional connections through the LM CoP, and most stated that these connections benefited their organizations by helping them do their jobs more efficiently and with fewer “trial-and-error mistakes”: One state interviewee noted that the CoP helped him connect with a CDC lab colleague who assisted him in electronically reporting laboratory test results. Others noted that participation in the CoP could be expected to have a broader impact on public health in the future by facilitating improvements in information technology infrastructure. Overall, the interviewees agreed that the LM CoP had helped improve access to and communication with CDC, and several respondents spoke specifically about the CoP as a tool to improve relationships between CDC and its public health partners.

With few exceptions, the LM CoP was well received and deemed by its members to be successful. Benefits from participation in the LM CoP included:

- harmonizing messaging;
- building relationships;
- identifying people who can assist with issues; and
- having a common place to share information, work on alignment, and share lessons learned.

Factors contributing to the overall success of the CoP were:

- having the right people involved in creating and managing the CoP; and
- having committed and engaged CoP members.

**Vocabulary and messaging CoP**

Members of the Vocabulary and Messaging (VM) CoP agreed that its purpose was to foster communication among persons working on public health vocabulary and messaging standards. All members reported that they joined the VM CoP because health information and data exchange was critical to their jobs, and the VM CoP was identified as an important resource for disseminating new ideas, gathering feedback, and keeping up to date on developments in the field. One respondent referred to the VM CoP as an “information conduit” for exchanging information and ideas. Another said the CoP encourages people to work outside traditional “silos”. Most VM CoP members were unaware of knowledge products developed by the CoP, yet some referenced posters and fact sheets developed by the CoP to convey the importance of using standardized vocabulary and messaging guides.
Most VM CoP members indicated that the CoP was not particularly instrumental in enhancing their professional connections or networks, primarily because most had established connections before the CoP was formed through other channels such as domain-specific professional organizations and conferences. The interviewees agreed that the CoP had been instrumental in improving relationships among CDC and its partners. One member noted the positive role the VM CoP had played in building relationships among CDC, state health departments, and professional associations.

VM CoP members cited many benefits from participating in the CoP, including knowledge sharing, advancement toward vocabulary standardization, and use of the CoP as a platform to get feedback on vocabulary messaging ideas and activities. In general, the members regarded the VM CoP as successful and found the maturity of the community to be a strength.

InfoLinks CoP

InfoLinks CoP members agreed that the CoP’s purpose was to foster information sharing and strategic planning in areas of public health informatics (e.g. health information exchange, electronic health records). Many interviewees also agreed that a main purpose of the CoP was to provide a forum in which members could learn from others so as not to repeat mistakes. Almost half of the interviewees were aware of one or more knowledge products developed by InfoLinks CoP members.

Several interviewees indicated that they valued the CoP’s role in expanding their professional networks. Most, however, did not perceive the InfoLinks CoP to be highly valuable for building or maintaining professional connections. Interviewees indicated that they had not participated in the CoP at a level high enough to develop such connections at the individual level. In general, the interviewees did agree that the InfoLinks CoP enhanced relationships at the organizational level, not only between CDC and its national public health partners but also between CDC and state health departments.

Most interviewees perceived the InfoLinks CoP as moderately successful. Members identified important benefits of participation as knowledge aggregation, the ability to work more quickly to address important issues, and learning how to exchange data accurately and securely.

Discussion

Within a community of practice, time is needed to share, learn, and build trust before solid work can begin in earnest; however, once that work begins, CoPs can be extremely effective in producing adoptable processes and products for use by practitioners in their fields (Wenger, 1998a, p. 214). In the CDC experience, a CoP might seem inefficient in its infancy but is actually developing the critical relationship base that will be needed to share knowledge transparently and work well together to address common problems. On the basis of evaluation results, CoPs are a valuable strategy for working across the public health system and are thus a good return on investment.

Today, the concept of CoPs has evolved to encompass the role of social participation in learning and collaborative work. In many organizations, CoPs, along with mentoring and apprentice programs, are now used as a means of capturing the tacit knowledge, or know how, that can be difficult to articulate in complex, hierarchical, and dynamic organizations (Liebowitz et al., 2010, p. 7). CDC’s CoPP brings together state, tribal, local, and territorial public health practitioners, academia, non-profit organizations, federal agencies, private-sector participants, and CDC staff to form CoPs in which all can learn together and jointly solve public health problems.

Currently within public health, more than 6,000 professionals in more than 200 CoPs use this CoP approach on a collaboration portal, phConnect, developed and managed by CDC and other public health partners (see www.phConnect.org). The CoPP also maintains a web-based Communities of Practice Resource Kit for use by CDC and its partners to plan,
launch, grow, and evaluate communities (see www.cdc.gov/phcommunities/resourcekit/index.html). CDC’s CoP approach engenders collaborations to share and create the information, expertise, and tools that public health practitioners and the jurisdictions they serve need to protect the public’s health.

Many CoPs initiated in the CoPP’s first years continue to learn and work together to support members’ job performance and improve their areas of public health; some have struggled but eventually overcame some “storming and norming” and are now thriving. Three of the CoPs assessed in this study are flourishing today, and one has disbanded since completion of the study. The CA, LM, and VM CoPs continue to convene productively primarily because they are critical functional areas for public health information exchange, were launched at a grassroots level, and became largely member-driven. The InfoLinks CoP, however, closed after a moderately successful but brief lifespan. With much support from the sponsoring organizations, the community rallied at the end of its duration to produce a knowledge product that invited public health practitioners to the health information exchange table and offered suggestions about becoming involved there. Factors that might have contributed to the InfoLinks closure include a lack of member-driven participation, frequent change of organizational sponsorship, and a shift in membership and focus in year 2 from a community of experts to a community of practice open to all levels of expertise. An additional potential factor was the emergence of other venues that fulfilled the need for collaboration in the area of health information exchange. This process reflects the natural lifespan of a CoP that has served its purpose during its time (Wenger et al., 2002, pp. 109-11). CoP sustainability and the associated lifespan are topics ripe for further research.

Given the public health system’s struggle to build its capacity during these economically challenging times, working together in CoPs and groups such as local community coalitions and regional collaboratives is critical to improving the nation’s health. CoPs enable agencies and organizations to maximize use of limited resources. The LM and VM CoPs, for example, came together with other national groups to rapidly produce guidance for influenza and H1N1 messaging and develop standards for routine disease case reporting.

CDC’s CoP Program expanded its scope in 2010 beyond informatics to foster communities of practice across many areas of public health, including obesity prevention, tobacco use prevention, and vaccine storage and handling. Program staff who had served as hands-on facilitators of the informatics CoPs began teaching the CoP approach across the agency. CDC has launched CoPs for grantee groups and training programs and has used CoP strategies with existing groups not formally called communities of practice. Given reduced staffing levels within the CDC CoP Program, this train-the-trainer approach works to build and sustain the CoP approach across CDC and among its public health partners.

Lessons learned

The interview results reveal some practical insights that can be applied to planning, launching, and sustaining CoPs in public health and other sectors. First, impact was greatest when members initiate the CoP’s formation and collectively identify the scope, focus, and work of the CoP. Members from both the self-initiated VM and CA CoPs felt empowered to choose their work, learning and tackling key issues in their domains with only light guidance from CDC. Conversely, CoPs formed by an organization to focus and work on a topic deemed significant by that organization, as exemplified by the InfoLinks CoP, struggled to build necessary relationships and connect around work they believed to be important. Such CoPs required an inordinate amount of support to achieve any ongoing benefit to the individuals and their organizations.

Results showed that CoPs can enable the relationship development and strengthening critical to building social capital in a domain. Members in the VM, CA, and LM CoPs noted that knowing the “go to” members, working outside of organizational silos, and staying current had increased their individual productivity in terms of reducing mistakes and redundancies. Members in all four CoPs noted that their participation had improved and even begun to restore (in the case of the CA CoP) their working relationships with CDC.
Fostering trust and building relationships within a community is the first and most important work a community can do to build social capital within the domain.

The timing of a CoP’s launch can be critical to its success. Current and evolving political, social, cultural, and economic barriers and opportunities within the field should be considered and monitored throughout the CoP lifecycle. Members of the successful CA CoP noted that the initiation of their CoP occurred at a critical juncture in the relationship between state health alerting coordinators and CDC, when improvements in communication and mutual understanding on both sides were needed. Similarly, the flourishing VM CoP was launched by members in response to a mandate for CDC staff to use standard terminology in federally built information systems. Continuing to respond to environmental needs, the CoP opened to CDC partners in year 2 and expanded its scope in year 4 to include the electronic messaging experts who used the terminology.

Across all four CoPs, members noted an overall shift over time in their interaction with CDC to include more active listening, openness, and responsiveness on all sides. According to interviewees, CDC staff members transitioned from directing to advising and listening to partners. Partners, accustomed to CDC taking the lead in forums and conversations, accepted leadership roles in the CoPs and readily adjusted to being equal partners at the public health table. This cultural shift was achieved by frequent sharing of clear rules of engagement and by partners and CDC staff speaking up and sharing responsibility in a democratic fashion.

Collaboratively developed knowledge products are described in this study as valuable to those CoP members who knew the products existed. Because many respondents identified some of these knowledge products by name in the context of other questions but did not name them in the knowledge product question, perhaps the term “knowledge product” was not well defined in the interviews and should be better explained in subsequent evaluations. Knowledge products named ranged in size and complexity, including materials such as letters requesting support for CoP initiatives, briefs to raise awareness of a key issue in the domain, guides for professionals new to the field, and researched calls to action. As a result of this study, the CoPP will make greater efforts to inform CoP members, and others who might benefit, of the availability of knowledge products and encourage them to use these products to improve public health processes, infrastructure, and outcomes.

The use of CoPs required a fundamental shift in the business paradigm at CDC. Rather than operating in silos, the CoPs work across programs, disciplines, organizations, and geographic regions to identify and address issues of broad applicability. CoPs are fundamentally informal, or at least less formally organized than the teams, advisory boards, or work groups that are often used in public health (Wild and Bara, 2010, pp. 188-9). CoP leadership is shared, unlike that of formal work groups or community coalitions, and no single agency or individual defines the members’ roles. The CDC experience highlights the need for flexible bridging of organizational hierarchies to support effective CoPs within large bureaucracies such as the US federal government.

Conclusion

CDC’s CoPP continues to use the CoP approach within the public health domain. The CoP model is not only a vehicle for deepening knowledge and expertise among members and solving common public health problems, but is also a strategy for enhancing relationships and bi-directional knowledge transfer between CDC and its public health partners. Recent calls for the integration of US health care and public health necessitates the use of better collaborative strategies such as CoPs within and across sectors (Institute of Medicine, 2012; Montero, 2012). Results of this study show that a well-facilitated, member-driven, and highly participative CoP can build needed social capital, thereby bridging organizational silos to develop and enrich professional networks for sharing, learning, and collaborating.

While this small, qualitative analysis of 37 members of four communities demonstrates the value and challenges of using the CoP approach within public health, further analysis of a larger sample from the more than 200 communities on the phConnect collaboration platform
should be explored. Investigation of the utility of the CDC CoP Resource Kit, which outlines the approach used to launch these four CoPs, is also invited.

The CoP approach aligns with the call at multiple government and public levels for a more open government, one that is transparent, participatory, and collaborative (Obama, 2011). Although the CoP concept is not new – reaching back to medieval guilds and into present-day neighborhood associations and faith-based communities – the approach has proven valuable in the public health informatics field and is showing promise for tackling complex challenges across the broader public health enterprise.

References


Further reading


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