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Evaluating Technical Exchange Networks (TENs) at Management Sciences for Health (MSH)

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When first introduced in 1991, the predominant concept of a Community of Practice (CoP) was that *communities* emerged organically from groups of people who shared a common passion and practice. Wenger's classic definition of a CoP (1998) characterizes them as grassroots and self-organizing where the enthusiasm and commitment of its members acts as the main motivation for participation. CoPs have since been adopted by knowledge management (KM) practitioners, particularly in the field of global development (Scarso, Bolisani and Salvador, 2009). CoPs are promoted as a KM solution for knowledge exchange, collaboration, innovation, and intentional reflection and learning.

Since 2009, the international nonprofit organization Management Sciences for Health (MSH) has supported online CoPs, called Technical Exchange Networks (TENs), with the aim of increasing access to technical and programmatic knowledge, facilitating peer-to-peer exchange, and stimulating action and behavior change for improved programming. Years of building institutional understanding of the value of the TENs have made it possible for them to grow rapidly and achieve widespread recognition across the organization. For their continued relevance within a changing and competitive landscape, the TENs must demonstrate their contribution to organizational learning and performance improvement in public health programming, while also adapting to new institutional needs.

We conducted a literature review to identify attributes of successful CoPs and develop an operational model for the TENs. Simultaneously, we conducted an exploratory assessment of the TENs and applied the results to the operational framework to better understand why some TENs performed better then others. Three case examples from the TENs are included to show how three different TENs functioned in relation to the operational framework.

Communities of Practice at MSH

TENs at MSH were established as one of the key strategic initiatives for internal knowledge exchange. In 2009, MSH created the TENs to increase access to evidence-based technical knowledge, facilitate collaboration and exchange among a globally dispersed workforce, and stimulate action for improved programming. Each TEN is composed of staff from across the world who are dedicated to learning about and sharing on selected health topics.

Since their inception, the number of TENs has increased to both meet the demand for technical exchange and build organizational capacity. Currently, MSH has 10 TENs (see Table 1)

composed of approximately 600 members from 45 countries. Over two-thirds of members are based in field-based projects supported by MSH. Each TEN is focused on either a technical area, such as reproductive, maternal, newborn, and child health, HIV/AIDS, and tuberculosis; health systems function, such as leadership and governance, healthcare finance, and human resources for health; or cross-cutting topics, such as gender, youth, monitoring and evaluation, and country operations.

Table 1 MSH's Technical Exchange Networks (January 2017)

TENs	# members	# countries
Reproductive, maternal, newborn, and child health	166	31
HIV & Tuberculosis	249	33
Governance, Leadership, Management	158	29
Healthcare Finance	34	2
Human Resources for Health	45	10
Gender & Youth	64	13
Monitoring & Evaluation	163	23
Communications & KM	35	1
mHealth	19	3
Country Operations	91	27

Methodology

An exploratory assessment of the TENs was coordinated by a cross-departmental committee in 2015. Using the *Guide to Monitoring and Evaluating Knowledge Management in Global Health Programs*,[i] the assessment was designed to explore the reach, use, and usefulness of the TENs as an organization-wide KM intervention. The assessment included a survey with scales and closed- and open-ended questions, as well as key informant interviews with randomly selected TEN members. The aim of the assessment was to clarify the value of the TENs to MSH, develop a set of core best practices in community administration, and understand why some TENs perform better than others. Approximately 25 percent of TEN members (n=182 members), of whom 49 percent were from MSH field programs, responded to the survey over a six-week period. Results were analyzed separately by two members of the committee, reviewed by the full committee, and then presented to MSH.

We also reviewed recent literature about CoP design, management, and evaluation. An aim of the literature scan was to identify attributes of successful CoPs. The literature scan entailed a review of both academic resources and grey literature relating to CoPs in MEDLINE and SocIndex databases. Supplementary searches were performed in three practice-focused journals (*the Journal of Knowledge Management*, *Global Health: Science and Practice*, and *Global Public Health*), and Google Scholar. The scope of the database searches was limited to papers

published between 2011 and 2016. The literature scan yielded 23 articles, of which 19 were reviewed in full based on title and abstract review and/or availability. Additional resources not identified through the literature scan were also included in the review.

Literature review

Summary of Findings

Given the broad interest in and application of CoPs in the private and public sector, a wide range of characteristics, attributes, strategies, and best practices for successful CoPs were identified in the literature. The articles reviewed varied in scope and methodology regarding CoPs. Nearly all of the articles identified the benefits of CoPs; a limited number of articles assessed a CoPs' effect on specific objectives and the common characteristics, or attributes, of successful CoPs.

Some of the more commonly described attributes included having a shared vision, active participation by community members, and leadership and management support. Many of these attributes are well known among KM practitioners working in the global health field and included in resources such as the *K4Health Toolkit for Online Communities of Practice* and *Global Health eLearning course on Online Communities of Practice*.

Generally, the literature reviewed aligned with Wenger's three characteristics of a CoP (domain, community, and practice) but placed emphasis on practice toward specific objectives. Communities were described as intentionally developed and actively managed to meet specific organizational performance objectives. The studies used varying terminology to describe how and why some communities work and others do not. For example, the articles described *best practices* that made for successful CoPs (Bolsani et al, Akhavan et al, Mabery, Wolf et al), the *critical elements* or *components* (Bertone et al, Jassbi & Jassbi), *attributes* (Iaquinto et al, Cheung et al), or *risk factors* that influence a CoPs viability (Jang et al). Of note, Akhavan et al (2015) identified the critical role that KM plays in CoPs by identifying management related best practices for CoPs including its organization, organizational support, infrastructure, strategy development, and goals. Additionally, Wolf et al (2011) found that CoPs that performed well often had three common characteristics around social or peer learning, participation in decision-making, and relationship building. Other articles focused on the extent to which CoPs could be measured or evaluated (Natividad et al, Bouroni et al, Messen et al, Ranmuthugala et al). Natividad et al (2012) documented how a knowledge network can increase capacity in research and knowledge synthesis by acting as a vehicle for evaluative thinking and debate in the global public health space. In Messen et al (2011), the authors show how a CoP helped to build a community of African experts in performance-based finance by facilitating both explicit and implicit knowledge sharing.

Many of the attributes discussed across the literature referred to power dynamics, leadership or management support, infrastructure, composition and size of the community, the way the community formed or grew, clarity in goal or strategy, and the commitment of its members. Overall, the literature suggests that while each CoP is unique, successful communities have some shared attributes.

Using findings from the literature review and insights from MSH's experience with CoPs, we developed an operational framework for the TENs. The operational framework includes the

community attributes, defined from the literature, which with organizational investments can improve the performance of the TENs.

As a KM community with a wide breadth of experiences with CoPs, we lack common frameworks for CoPs, including indicators for monitoring and evaluation (M&E) and research methods to demonstrate how CoPs can be used to meet organizational learning objectives. The framework described below, although developed for the TENs, may help to ignite ideas to other KM practitioners striving to establish or improve the performance of CoPs.

Defining Domains and Levers of Change

In global health and development, CoPs are often discrete and intentional KM interventions to meet a business purpose. At MSH, the TENs are a KM solution meant to enhance MSH's capacity to innovate, experiment, and learn for performance improvement. In order to better understand how the TENs function toward that goal, findings from the literature were synthesized into an operational framework with three domains of change: formation, structure, and character. *Formation* includes the aspects of a community related to its purpose, readiness to emerge, and rules of engagement. *Structure* includes aspects related to the organizational and leadership environment in which a community exists and operates. *Character* includes aspects related to membership dynamics and norms of the community that motivate participation.

The three domains of change can be further subdivided into ten distinct levers of change. These levers represent discrete attributes of CoPs that can be individually or collectively selected to enhance the performance of a community. Table 2 describes each of the ten levers within each domain of change.

The TENs have three primary objectives: to improve access to information, foster a sense of community, and provide opportunities for action. By investing in certain levers of change, the TENs can be modified to meet MSH's needs. Figure 1 shows the relationship between the community domains and levers of change to the objectives and goal of the TENs.

Table 2 Ten levers of change for communities of practice

Domain	Levers	Description
Community Formation	Purpose	The specific focus, goal, or objectives for a community's existence
	Readiness	The stage in which a community is ready to emerge, form, or take action
	Platform	The appropriate platform for engagement to meet the community's need, e.g. synchronous or asynchronous platforms
Community Structure	Membership hierarchy	The nature of a community's structure, e.g. along formal organizational structures or across institutional groups and boundaries
	Sponsorship	The degree to which a community has senior or expert leadership supporting the community's goals

	Organizational support	The time and resource investments made by the hosting organization and its leaders
Community Character	Passion and enthusiasm	The degree of passion and enthusiasm of members for the topic of the community
	Recruitment	The process by which or why members join a community, e.g. voluntarily, for professional development, or as a part of their job description
	Mix of contributors	The balance among a core group of high contributors, intermittent contributors, and passive learners or "lurkers"
	Connectedness	The extent to which members feel that the community includes collaborators, partners, and other key stakeholders; safety, trust, openness, and transparency and expected degree of reciprocity

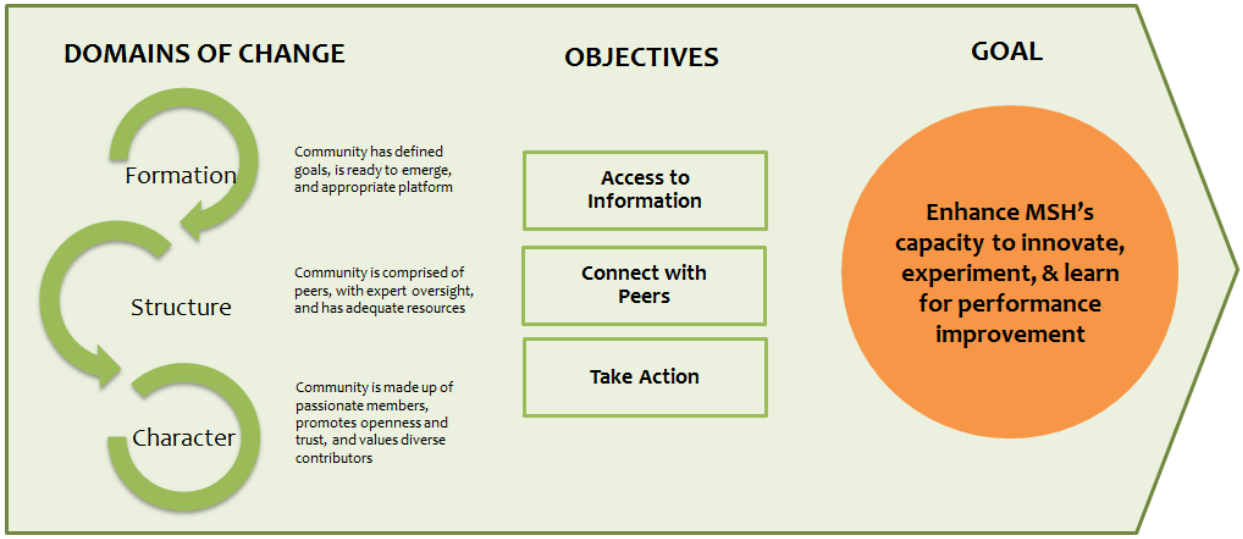

Figure 1 Operational Framework for the TENs

Applying the framework to the TENs

Following the establishment of an operational framework for the TENs, the results from the assessment were applied to the domains and levers of change for CoPs identified from the literature. A future assessment will determine if intervening in the domains of change will help sustain or improve performance to meet the TENs' primary objectives. .

Domain: Community formation

The domain of community formation includes the purpose of a community, the community's readiness to emerge, and the appropriate platform for engagement, including online and asynchronous, live and synchronous, or hybrid interactions.

Lever: purpose. Most of the TENs began with the establishment of a charter that described the technical subject matter, goals and objectives, learning themes, channels for communication, and roles and responsibilities. Access to relevant technical information is a key objective of the TENs. In the assessment, 83 percent of respondents reported they understand the value of being a member of the TENs (See Figure 2). Staff reported they learn about new technical topics (62%), learn about best practices (61%), and that the TENs provided them with information that was useful to their work (70%). One-quarter of respondents stated that the TENs make them feel like a part of a larger MSH community.

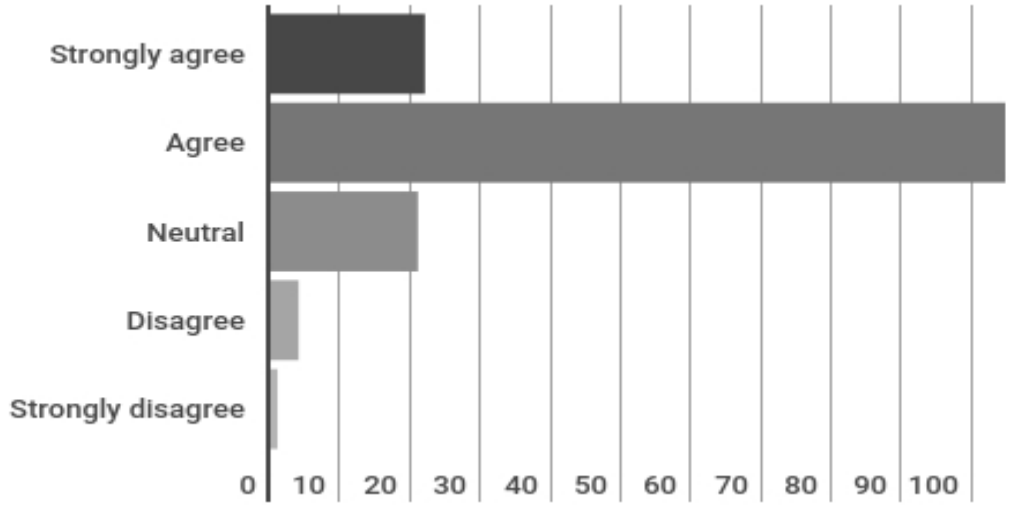

Figure 2 Understand the value of being a member of the TENs.

Clarity of purpose can also be determined by the type and appropriateness of messages and discussions that occur within the community. Because the TENs are not moderated, the unregulated flow of messages can make it difficult for some members to differentiate between evidence-based information and postings that are anecdotal. Some respondents proposed that rules of participation and conduct should be better described so that members have a clearer sense of what to share, what not to share, and what to expect from the TENs.

Another indicator for clarity of purpose for the TENs is if they are able to deliver information that helps work performance and particularly to reduce duplication of effort. Only 45 percent of participants indicated that the TENs help to reduce duplication of effort (e.g., "reinventing the wheel"). As one participant noted: "I think it would take more active engagement to help reduce duplication of effort, but at least if one is interested in learning what other MSH projects are doing, the TENs are a good source of that information."

In the assessment, community members suggested both that TENs could have a narrower focus in alignment with organizational business priorities and that TENs with overlapping technical themes could be merged in order to have a more comprehensive technical focus.

Lever: Community readiness. Each of the TENs was created either spontaneously to meet staff interest or intentionally to meet organizational business priorities. In the early days of the TENs,

three TENs (focused on HIV; maternal, newborn, and child health; and family planning and reproductive health) were intentionally created as part of a corporate strategy to promote these technical priorities. They grew out of a vision to build more technical capacity and knowledge in these technical areas, diffuse technical information, and promote cross-fertilization of ideas.

The early TENs were often coupled with webinars and periodic, synchronous events. Subsequent TENs were also created to build knowledge exchange around the elements of a health system. Generally, the TENs by health elements were not as ready to form as the technical TENs. The cross-cutting TENs for gender, communications, and monitoring and evaluation (M&E) were established organically because of staff demand and community charters were developed. A country operations TEN was established due to the recognized need to have a shared platform for exchange in country operations activities that was not yet supported by the MSH intranet. The cross-cutting TENs were ready to form and their performance is more similar to that of the technical TENs.

Lever: Platform. Given that MSH employs over 2,000 staff in more than 50 countries, the TENs were created as online, virtual CoPs with exchange between members taking place via email. Previously, face-to-face or synchronous events were part of the engagement strategy for the early TENs. However, these efforts had mixed success due to challenges such as ideal timing of the events, language barriers, and internet capacity and ultimately these strategies were not sustainable.

In the survey, 55 percent of respondents agreed with the statement "they are satisfied with the number and/or frequency of emails"; nearly 15 percent disagreed or strongly disagreed with that statement (see Figure 3). The qualitative responses stated that many staff felt that the email format was challenging and often not conducive to meaningful exchange. However, staff preferred to receive messages directly to their corporate email thus avoiding having to go to another website to access discussions.

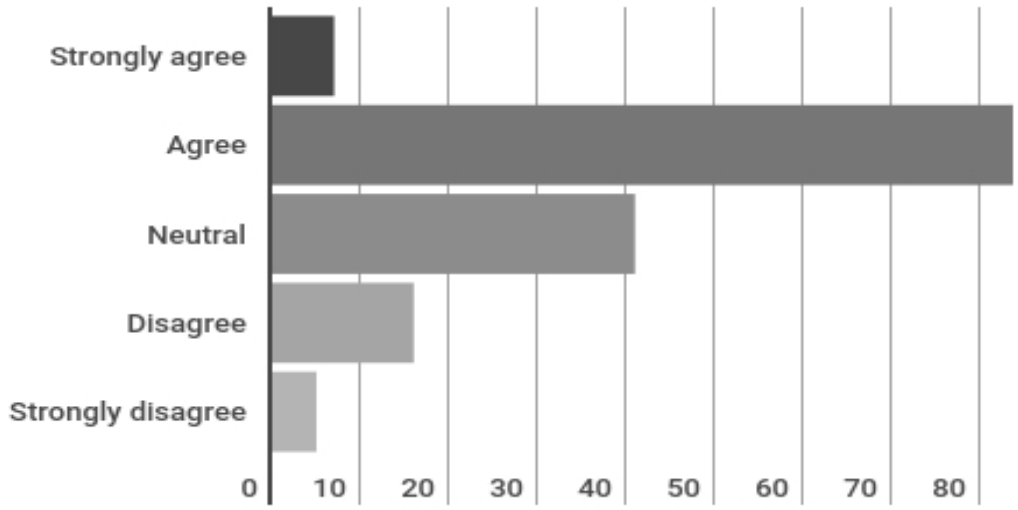

Figure 3 Satisfaction with the frequency of email posts through the TENs.

Despite staff desires to have more synchronous events, the assessment revealed that the platform of virtual exchange was resulting in improved access to information. Approximately one-third of respondents agreed or strongly agreed that they changed the way they perform their job based on something learned through the TENs; 26 percent adapted or translated information from the TENs for their work. Furthermore, 50 percent of respondents talked with another person about something learned through the TENs and 44 percent forwarded an email received through the TENs to another person. The assessment revealed that despite mixed sentiments about the TENs platform, generally, the platform was helping to achieve the stated objectives of the TENs.

Domain: Community structure

The domain of community structure refers to the membership hierarchy of the TENs, sponsorship and leadership by senior and other staff, and the financial, technological, human, and other resources committed by MSH to support the TENs.

Lever: Hierarchy. The TENs do not follow MSH's organizational or management structure. Consequently all members of TENs have equal voice and ability to participate and share experiences regardless of levels of supervision and authority within the corporate organization. Respondents in the assessment commented that staff are able to contribute to the discussion because it is unregulated and has an informal structure. One member stated: "[The TEN] is not censored or managed according to any staff hierarchy" while another member stated "There is openness, no management relationships and there is respect of ideas."

The nonhierarchical nature of the TENs could contribute to staff opinions on whether the TENs are a safe space for discussion. In 2015, just over half of participants stated that the TENs were a safe space for honest discussion; over one-third of participants were either unsure or disagreed that the TENs were a safe space for open discussion. Senior staff and technical experts may have felt more comfortable sharing experiences and participating in discussions than non-senior staff, who felt reluctant to share among more experienced, senior members of the community. Table 3 shows that efforts to promote that the TENs are *For and by MSHers* has helped to improve the perception of the TENs as a space where honest discussion can occur.

*Table 3 Are the TENs a safe space for discussion? analysis of assessment (*Preliminary 2017 results)*

Are the TENs a safe space?	2015	2017*
Yes	57%	71%
No	10%	4%
I don't know	33%	25%

Lever: Sponsorship. Leadership in TENs comes from participation by senior technical leaders within the organization and from high contributors within each TEN. Senior leaders most often

show leadership in the TENs by providing technical and analytical comments about postings. In recent years, attempts have been made to better connect senior technical leaders to corresponding TENs; however, this has been difficult to sustain across all of the TENs. As a result, leadership and sponsorship in some TENs has been more organic than intentional. An unintended consequence of senior sponsorship is that when a TEN is closely aligned with that senior leader and that leader leaves MSH, activity in the TEN may decrease considerably. However, TENs that have been in existence longer are able to keep a steady momentum and have become self-sustaining even without active senior sponsorship.

Leadership within a TEN can also emerge from non-senior staff members who have strong technical backgrounds and also regularly share resources and information about upcoming global events and technical webinars. These staff members represent informal leaders within the TENs and are critical to keeping the community vibrant.

Lever: Organizational support. MSH supports the TENs by allocating resources to staff dedicated to some of the TENs, through the technical groups, and the Performance, Learning and Impact (PLI) unit. The decentralized nature of organizational support to the TENs helps to ensure they remain an enterprise-wide KM solution available to all MSH staff. Many of the services that support the TENs, such as global administration and technical troubleshooting, are often invisible to users allowing them to engage with the TENs as they would any other MSH KM platform. However, efforts can be made to improve the perceptions that participating in a TEN discussion is time away from core work. Although the assessment did not specifically ask about time and resource allocation to the TENs by community members, many respondents commented that they wished they had more time to read emails sent through the TENs and engage in discussions.

Domain: Community character

The domain of community character refers to the passion and enthusiasm of community members, the degree of commitment, connectedness, openness, and trust, and the dynamics between different types of contributors.

Lever: Passion and enthusiasm. Members of the TENs are enthusiastic and passionate about the subject matter of the TENs they join. Members are motivated to participate because the TENs provide them an opportunity to learn and keep current in a technical area. Approximately 83 percent of respondents agree or strongly agree that they understand the value of being a member of a TEN. It is recognized that each TEN has a slightly different character—with some TENs serving primarily as a listservs, others for questions and problem resolution, and others for back and forth discussion. Respondents stated that they are eager for continued technical exchange and wish for more active sharing of project experiences, implementation practices, materials, challenges, and lessons learned. Many respondents noted that they enjoy the opportunity to learn from peers and provided ideas for new topics to be considered in future discussions.

Lever: Recruitment. Participation in the TENs is voluntary. Staff self-select the TENs that they want to join, regardless of whether they are a technical expert or new to the field and regardless of whether that individual's project work directly relates to the technical topic of the TEN or not. This has helped to differentiate the TENs from other team-based or thematic email distribution

lists that might be more formal in nature. In 2016, over 175 individual emails were sent to the TENs helpdesk either to join a TEN, manage membership, or requests to learn more.

The desire to learn more about a technical or practice area and keep current on programmatic issues was commented as a major reason for members to join the TENs. Although voluntary membership alone does not guarantee the success of a community, many respondents stated they also use the TENs for professional development.

Lever: Mix of contributors. Success of the TENs has depended on the presence of a core group of members, including points of contact, senior technical leaders, *and* intermittent contributors. The remaining members, which represent a large base of the community, includes passive learners or "lurkers." This mix of members means that postings include a balance of contributions from a wide range of staff, not just technical experts. Even though over three-quarters of survey respondents agreed or strongly agreed that the information sent through the TENs is credible and reliable and of high quality and relevance, TENs' performance shows that TENs that have a balance of intermittent contributors are more active than TENs that just have a few high contributors. For the TENs, having a core group of intermittent contributors was linked to more consistent performance.

Lever: Connectedness. Membership in the TENs helps staff feel connected to a global community. Nearly 55 percent of respondents feel they are part of a larger MSH community as a result of the TENs and 27 percent stated that membership in TENs makes them feel connected to a broader global health community. Respondents reported feeling as though they are able to connect with other MSH staff and stay informed about colleagues' work and interests. Some respondents, however, noted that not knowing who is in the community inhibited them for more active engagement.

Another aspect of community connectedness is trust. As mentioned previously, responses on whether the TENs are a safe space for honest discussion were mixed. Open-ended comments highlighted varied sentiments felt by community members. For example, some respondents feel that the TENs are safe spaces because they represent a unique social space within MSH where members can interact freely and outside of organizational management structures. Others feel the TENs are not a safe space for truly critical discussions, counterarguments, or controversial topics that might be at the periphery of MSH business priorities.

Case examples

Three case examples are explored to help describe the added value that the TENs bring to MSH and the importance of mixed method evaluations of CoPs. The case examples illustrate how the TENs can be effectively engaged to produce results by leveraging specific levers mentioned above. The first example, from the Governance Exchange TEN[1], shows how the TEN was used for real-time problem resolution through the leadership of a senior sponsor and dedicated staff time. The second example, from the Leadership Development TEN, shows how the combination

[1] In 2016, the Governance Exchange and Leadership Development TENs were merged into a Governance, Leadership, and Management (GLM) TEN.

of contributors led to the development of a shared product.

Governance Exchange: Real-time problem resolution in the Democratic Republic of Congo (DRC)

The Governance Exchange TEN was established in 2014 to enable staff who are passionate about governance in the context of health programming in low- and middle-income countries to share knowledge and experiences. In its first two years, the Governance TEN was a reliable source of information exchange. Posts were initiated at least once or twice a month and over 40 percent of posts became discussion threads. Compared to a similarly sized FP/RH TEN, the Governance TEN had a higher proportion of contributors from field-based programs.

One of the success factors for the Governance TEN was a dynamic sponsor interested in improving engagement with members of the community. With the help of interns and KM staff, the community sponsor commissioned an analysis of members: who was a member and why, how often they participated, and their level of comfort in governance as a health systems area. With this information, an engagement plan was conceived. In June 2015, a message was sent through the community posing two questions about a real problem faced by a program in DRC. The questions included the following: How can local governing bodies address the lack of coordination among health programs? How can a local governing body address poor working conditions that erode the morale of health managers and health workers?

Over the next two days, 21 responses from nine countries were shared through the TEN. The responses were reviewed and synthesized, common themes were identified, and the responses were shared with the country programming team.

The experience of the Governance TEN illustrates how a TEN led by a committed senior sponsor could be used to resolve a problem in real time. Other examples from the TENs can be explored to illustrate how other levers of change help promote problem resolution. For example, for country operations staff, the COMU TEN is the primary platform on which to pose questions such as "*Where can I find our policy about…*" or "*Who has access to a French translation of…*" Questions are usually resolved quickly. In May 2017, a question about per diem policy from Swaziland generated eight posts and was resolved within 24 hours. Having a shared platform among the country operations community made this possible. In the Gender and Youth TEN, a question about gender indicators was posed. The enthusiasm of its members resulted in a total of seven posts on this topic in less than 10 hours. The originator of the post received the information she needed from the community and thanked them. These examples show that community members are ready and willing to participate in problem resolution when the right ingredients are in place. However, not every TEN is able to trigger such a response and when questions or posts do not elicit a response, some members may take it personally.

Leadership development technical exchange: Crowdsourcing-lite

The Leadership Development TEN was established in 2012, with the purpose of providing staff with the most up-to-date information about MSH's approaches to leadership development. The Leadership TEN helps to stimulate discussions around the role of leadership and management in increasing access to quality health services in low- and middle-income countries. From 2014 to 2015, the Leadership TEN was sustained with an average of three unique discussion threads per

month. By early 2016, the Leadership TEN had 170 members from 29 countries.

In 2014, two MSH staff initiated a discussion thread through the Leadership Development TEN asking staff to participate in a collaborative project to develop a booklet for managers. Over 20 responses were collected by participants referred to as the "*ABC crowdsourcers."* Over the next few months, participants were engaged in a survey and shared a Google Document to develop a booklet called the *ABCs for Managers who Lead.*[2] The purpose of this booklet is to help health and development practitioners to reflect on 26 important management and leadership concepts.

The result was that a global community of staff were engaged to deliver on an idea through the TEN. The project was completed in late 2015, with the development of a webpage, accompanying blog post, short video about the booklet, and print publication of the booklet. As one of the coordinators mentioned, "It's hard for me to believe that we created the booklet by crowdsourcing with people across the world simply by way of the internet."

Gender and Youth: Monthly Knowledge Exchange Lunches

The Gender and Youth TEN was established in 2013, with the purpose of bringing staff together to discuss the gender and youth components of MSH's work. Originally established as the Gender TEN, members changed the name to reflect the intersection of gender, age, and equity and to reflect their interest.

Compared to other TENs, the Gender & Youth TEN is small with less than 70 members from 13 countries. Despite being a smaller TEN, the proportion of monthly posts that become discussions is high and consistently places this TEN in the top five performing TENs. The TEN is used to pose questions or problems, share resources, and even to learn about MSH's breastfeeding policy. As one staff member shared: "Loving the gender and youth TEN! Had a question, got SO many thoughtful responses."

The Gender & Youth TEN is sustained by a core group of passionate and enthusiastic staff who keep the conversation going. Since 2015, members of the Gender & Youth TEN have met for monthly informal lunches to share work related to gender and youth, learn from each other, and strategize on how to best support MSH's commitment to youth programming and gender equity.

Preliminary results from 2017 assessment

Over a year after the assessment was completed and data-informed improvements were implemented, the TEN Group conceptualized a new assessment. Using a subset of the questions used in the first assessment, the 2017 assessment intended to determine changes in key indicators. This would be the first time that multiple data points for the same questions were collected about community member experiences within the TENs.

Preliminary analysis shows that among most indicators, there was a positive trend in terms of community member access to information, satisfaction, and action. Figure 4 shows that there was a 17.3 percentage point increase in staff indicating they had talked to another person about

[2] Available at http://www.msh.org/sites/msh.org/files/abcs_for_managers_who_lead_web_version.pdf

something they learned from the TENs (from 43% to 60.3%) and an 11.3 percentage point increase in staff indicating that they made a change in their project or implementation based on information gained from the TENs (from 12% to 23.3%).

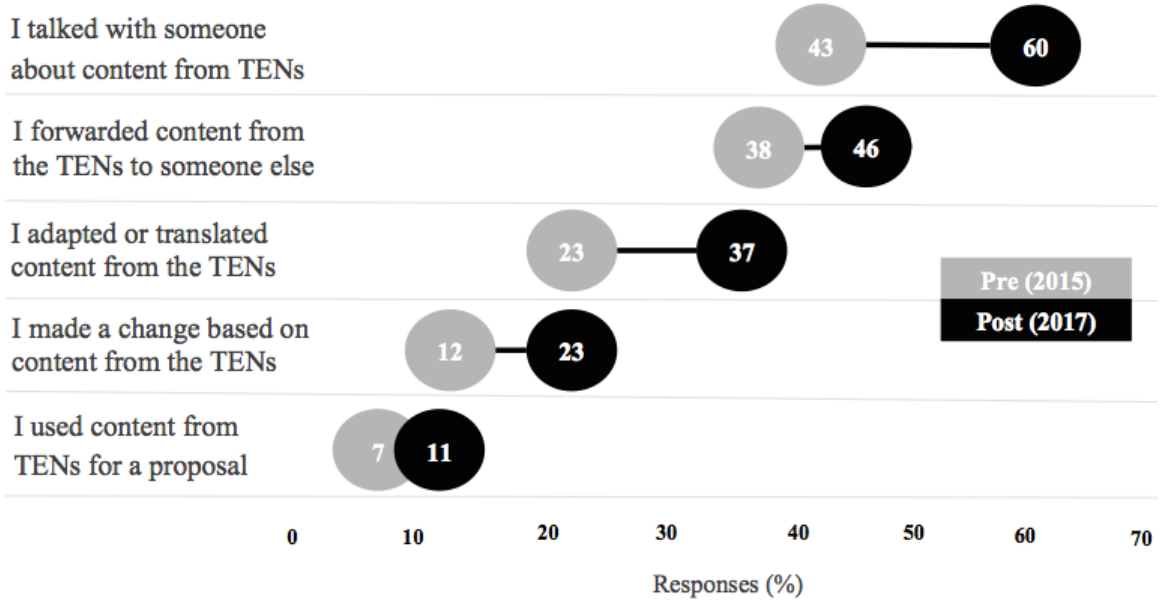

Figure 4 Results from two assessments (pre- and post implementation of user-informed improvements)

In the previous assessment, some of the lowest indicators were on duplication of content and quality of information sent. In the most recent assessment preliminary results suggest that content sent through the TENs is high quality and credible. However, there was minimal to no change in job performance based on what was learned through the TENs. The assessment shows an improvement in the perception that the TENs are a safe space for dialogue (from 57% to 71%). The vast majority of respondents agree with the statement that they understand the value of being a member of the TENs. However, there was nearly no change in staff perception that the TENs help to reduce duplication of effort (from 45% in 2015 to 47.9% in 2017).

In the past year, organizational shifts in technical leadership at MSH may have posed a risk to the TENs. However, during this time, routine analytics were closely tracked and analyzed and show sustained performance and the TENs ability to withstand major organization shifts (See Figure 5).

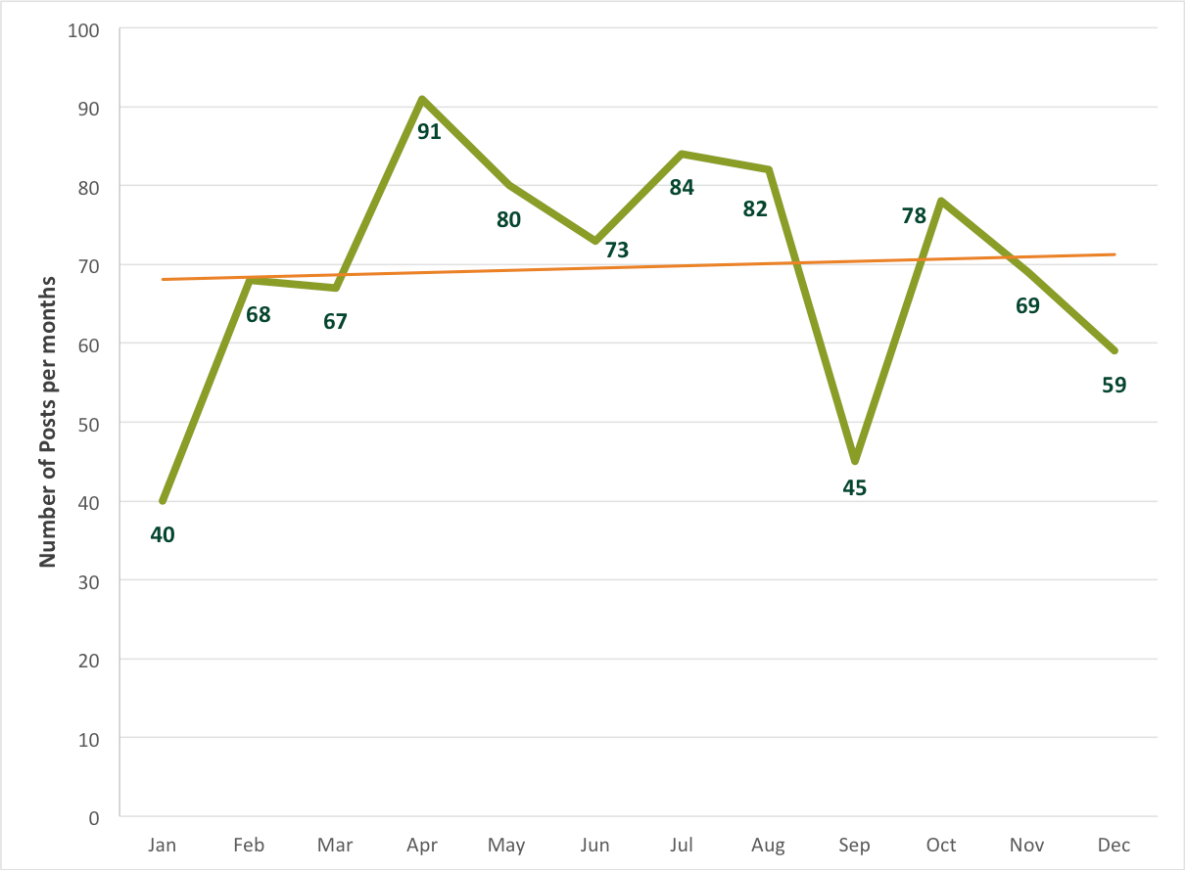

Figure 5 Sustained TEN performance despite organizational shifts in 2016.

Despite improvements across most indicators, positive feedback from TEN users, and sustained performance, overall satisfaction with the TENs remains similar from 2015 to 2017. It is important to note that the improvements demonstrated in the 2017 assessment are illustrative and further analysis is needed to determine which changes are significant.

Conclusion

CoPs are one of the most widely known tools for KM. Thus, it is critical for global health programs and the KM interventions that support them to demonstrate added value. MSH has supported online CoPs for over nine years, but this assessment is the first time that they have been comprehensively assessed to determine how they function and what effect they have on knowledge, connectedness, behaviors, and practices.

The operational framework and corresponding levers of change help to establish a foundation for the design, monitoring, and evaluation of CoPs. Ultimately, it helps to ground the good intentions that often come from the idea to establish a CoP with practical solutions on how to support it to achieve its desired purpose. At MSH, the assessment and the framework provide important insights into how the TENs can be used to collaborate with peers around the world and add value to the agency's mission and vision. By using the CoP domains and levers of change,

MSH now can identify which TENs are ready to be pushed to the next level of CoP functionality to meet MSH's evolving performance and learning priorities. Future evaluations of the TENs will help to link improvements in the TENs' primary objectives with intentional shifts in the levers of change identified in this operational framework for CoPs at MSH.

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Abstract

The aim of this paper is to describe an exploratory assessment of communities of practice at Management Sciences for Health (MSH). Specifically to clarify their value to MSH; develop a set of core practices in community administration; and understand why some communities perform better than others. An operational framework for communities of practice at MSH is proposed with three domains of change and ten distinct levers of change. This framework

represents discrete attributes of communities that can be individually or collectively selected to enhance performance.

Keywords
Knowledge management, communities of practice, monitoring and evaluation, community attributes, technical exchange.

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