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RESIDENCY LEARNING NETWORKS: WHY AND HOW

One of the most important features of the draft Accreditation Council for Graduate Medical Education (ACGME) family medicine residency requirements is a call for residencies to participate in learning networks. The American Board of Family Medicine (ABFM) believes that such networks are vital to residency redesign. Learning networks are evidence-based interventions that can help scale and spread innovations; develop and connect faculty, staff, and residents within and across programs; provide access to peer-to-peer expertise to identify and solve problems and mitigate the effects of burnout during times of change. In the words of an African proverb, "If you want to go fast, go alone. If you want to go far, go together." This editorial update describes the variety of residency learning networks (also known as collaboratives, academic learning collaboratives, or quality improvement collaboratives), briefly summarizes evidence about key elements of networks, and reviews practical lessons learned.

Since the early days of family medicine, residency programs, program directors, faculty, and residents have assembled regionally and nationally to engage in peer-to-peer learning, expert-to-peer learning, or both. The goal of the meetings has typically been to imagine and implement education and care delivery innovations that better prepare family medicine graduates for contemporary practice. Over the last 20 years, formal learning networks have become mainstream, from the Institute for Healthcare Improvement (IHI) to hospitals and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), to the Centers for Medicare & Medicaid Services (CMS) and the ACGME.

Learning networks happen when multiple parties commit to work together to accomplish a specific goal and obtain or create explicit and tacit knowledge.¹ Residency networks have a variety of forms and structures depending upon their intent.

At one end of the spectrum are learning events or conferences where individual residencies come together to present their experiences, foster deeper knowledge, and sharpen skills—essentially a more focused kind of continuing medical education. Examples include the Society of Teachers of Family Medicine (STFM) Conference on Quality and Practice Improvement and the American Academy of Family Physicians (AAFP) Residency Leadership Summit held in collaboration with the Association of Family Medicine Residency Directors (AFMRD). Meetings help disseminate what has worked, provide opportunities for informal advice and more formal feedback, and inspire others to try similar approaches.

At the other end of the spectrum are teaching practice collaboratives that focus on specific problems, identify common outcome metrics, and share interventions. These networks often leverage a common strategy (sometimes referred to as change packages), data exchange, and commitment from residency and institutional leadership. These learning collaboratives have infrastructure that supports residency change or improvement, such as dedicated meetings, websites, listservs, subject matter consultants, and/or practice facilitation. Networks and collaboratives with more capacity for support are particularly valuable for implementing complex care delivery and educational changes occurring at the same time, such as the advanced primary care features of high-performing primary care.²⁻⁴ Recent robust examples of these collaborative models include the Colorado Residency patient-centered medical home (PCMH) with 11 teaching practices, 5,6 the I³ Collaboratives with up to 30 residency practices located across North Carolina, South Carolina, Virginia, and Florida, and the Clinic First Collaborative sponsored by AFMRD in partnership with the University of California San Francisco (UCSF) Center for Excellence in Primary Care with nearly 50 family medicine teaching practices spread across the nation.

There is good evidence that learning networks spread innovation and improve care. In family medicine, the I³, P4 and Length of Training, and the Colorado PCMH collaboratives have published improved clinical and/or educational outcomes. More broadly, systematic reviews have found that participation in quality improvement collaboratives may improve health professionals' knowledge, problem-solving skills and attitude; teamwork; and shared leadership and habits for improvement. Interaction across quality improvement teams may also generate normative pressure and opportunities for capacity building and peer recognition. The impact of collaboratives is influenced by the quality of external support, leadership characteristics, quality improvement capacity, and alignment with systemic pressures and incentives.⁷⁻⁹

Which organizations can sponsor residency learning networks, and what help can they provide? With the support of the review committee and the specialty, there are many potential sponsors, including departments of family medicine, AAFP state chapters, large health systems with multiple residencies or combinations: wherever there is a will to learn together. These organizations often have infrastructure with no direct costs such as conference rooms, parking, event management, and/or communication services. Some may also employ or partner with subject matter experts in practice transformation, competency assessment, data collection and analytics, research methods, and dissemination. Importantly, the range of costs is quite broad, from no direct costs to coverage of dedicated fractional FTE of physician leaders and staff.

No matter the structure of the residency learning network, regular communication among participants is key to success. Learning collaboratives are based on personal relationships and trust. Meetings one or more times per year help teaching practices and their faculty assimilate change concepts, develop "teamness," learn from peers facing similar challenges and celebrate successes. For example, in the I³ Collaborative, programs participated in twice per year in-person meetings where about one-third of the participants were residents, one-third faculty, and one-third residency leadership and clinic staff. While some learning collaboratives use web-based meetings after an initial kickoff event, there are compelling insights from experienced host organizations that in-person meetings allow maximum spontaneous sharing and the psychological safety necessary for innovation.¹⁰ Sustaining momentum between collaborative meetings is another key to success. Robust collaboratives use practice facilitation such as technical assistance from a subject matter expert or a quality improvement coach, live and enduring topic-based webinars, learning management system tools, support of related academic projects, communication tools, or project management support.11-14

What is the right size for learning networks, and how should they be governed? Although there are a variety of approaches recommended in the literature, practical issues such as available resources, perceived value of the proposed changes, and leadership commitment frequently define what is possible. In general, more is better in terms of the variety and number of innovations and translation of learnings to a broader community; if possible, modest flexible financial support to regional travel and food is very helpful for participating residencies. An executive steering committee has been adopted for all the major residency collaboratives, meeting weekly to monthly. The purpose is to develop consensus on what is happening, respond nimbly to changes, design conferences, and to maintain momentum. Finally, it is important to consider evaluation from the outset. Collection of key data prospectively, describing the context and the intervention systematically, and reporting results in an enduring form are all important. External evaluation reduces bias and focuses attention on real time data collection.

What are the challenges of residency learning collaboratives? A common concern is that residencies are competing for medical student applicants and may not want to share information or may use information shared against another program. In practice, however, this has not turned out to be a problem in any of the major collaboratives. Because of this concern, the I³ Collaborative implemented a formal data use agreement, but has not had any further discussion of this issue in almost 15 years. Another consideration is cost-effectiveness. For example, the frequency of meetings is clearly an important variable, whether they are virtual, in-person, or a combination. The I³ meetings included 100 to 140 people in person twice per year for over 10 years. The cost of in-person meetings can be minimized by keeping them short—10 to 12 hours over 2 days within easily drivable distance—and using academic venues that are free, have parking, and have space for small group activities. Allocation of resources, such as quality improvement coaches for practice facilitation, vary based on the size of the network, geography, complexity/intensity of the change ideas, and available funding. I³, for example, had approximately two 0.4 FTE staff positions, with funding coming initially from local foundations.

The ABFM believes that residency networks are foundational to residency redesign. We urge the ACGME to support residency learning collaboratives in the final standards. Given the ambitious scope of the proposed changes in our residencies, from competency-based education¹⁵ to the practice is the curriculum and robust community engagement, learning collaboratives are critical for the future, not just now but 10 years from now. ABFM and its foundation stand ready to support residency learning networks, both for the AIRE program and more broadly as the family of family medicine organizations engage to support networks. We welcome your feedback: we will learn together what works and what doesn't.

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