

A Cooperative Extension Service for Primary Care in Oklahoma

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ABSTRACT

Lessons learned and practiced in agriculture for 100 years are now informing the development of a primary care extension program that has the potential to provide substantial support for primary care practices throughout Oklahoma and to make it easier for all agencies and organizations working to improve our state's health to do so more effectively.

BACKGROUND

A Brief History of Cooperative Extension

When our country was founded, the founding fathers correctly calculated that agriculture would be critical to the success of the young nation, and they were concerned that most farmers weren't practicing "evidence-based" farming. Poor plowing methods, failure to rotate crops, and other antiquated methods resulted in inefficient production and soil exhaustion. Poor coordination led to shortages of some crops and overproduction of others. Over 50% of the American workforce was involved in farming, reducing the number of adults available to other vital occupations. Food availability was unpredictable, prices were high, and quality was uneven. In his book, *Taking the University to the People*, Rasmussen recounts the steps taken to bring science into agriculture, steps that parallel those now being taken in health care for similar reasons.¹ For that reason, it may be instructive to review some of that history.

In 1796 George Washington proposed an office to promote dissemination and diffusion of modern agricultural methods. However, this had little impact. In 1810 the first agricultural journals were published, but readership was low. Frustrated, by the reluctance of established farmers to accept scientific methods, in 1862, Congress passed the Land-Grant College Act intended to train a new generation of evidence-based farmers. However, enrollment was less than anticipated. Many thought they could learn better by doing than by studying, and, they were needed on the farms. In fact, there was *limited practical material to teach since much of the research wasn't well matched to the day-to-day needs of farmers.* The agricultural colleges mostly taught farm operations.

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In order to address concerns about the disconnect between research and practice, the Hatch Act of 1882 established funding for "experimental farm stations," which were to be located strategically to replicate actual farming conditions and be more visible to farmers. As the experimental farm stations began to produce potentially useful results, they began to publish in research journals and bulletins. In 1889 the Department of Agriculture began issuing *Farmers' Bulletins* and the *Yearbook of Agriculture*. However, these publications reached a small proportion of farmers, many of whom still distrusted "book farming." To reach more farmers, the Departments of Agriculture began to offer local "Farmers' Institutes" throughout the country.

Despite these strategies, farming practice progressed remarkably slowly until, in 1903, a U.S. Department of Agriculture employee, Seaman A. Knapp, conducted an experiment in Terrell, Texas that resulted in a new way of looking at "continuing agricultural education." He decided that if he could convince one carefully chosen farmer to use evidence-based methods on a portion of his land, the results would convince him of the benefits, and he might then be able to convince other farmers in the same county to try them. When his experiment worked better than he could have imagined, Knapp offered Walter C. Porter, his "early adopter," a job as "county agricultural extension agent," and was given funding to hire an additional 32 additional extension agents in counties throughout Texas and into Louisiana. Word spread quickly, and, even as county extension offices were springing up in other states, Congress, passed the Smith-Lever Act in 1914, authorizing the Department of Agriculture to establish a nationwide Agricultural Extension Program. The goal of the program was to maintain meaningful bi-directional communication between the land grant universities and farmers and provide on-site training and assistance to farmers so they could stay abreast of advances in science. By 1920, there were seven thousand federal extension agents, working in nearly every county in the nation, and by 1930 there were more than seven hundred and fifty thousand demonstration farms and farm stations.

The ingredients missing from all prior strategies were person to person academic detailing (Knapp's instruction of Porter) and implementation assistance provided by a trusted neighbor and colleague (assistance provided by Porter to the other farmers in the county). Key principles were locality and

interpersonal relationships. The results were truly astounding. Productivity increased dramatically and prices fell by 50%, so that by 1930, food comprised just 24% of family spending and 20% of the workforce. Today, food accounts for 8% of household income and involves only 2% of the labor force. Food availability, variety, and safety are taken for granted.

Cooperative Extension receives funding from federal (30%), state (70%) and county (<1%) sources. Funding is of two types, sustainable funding and project-specific funding obtained through competitive grants and contracts. At the time of Rasmussen's book (1989), staffing was 1% federal, 32% university, and 67% local plus more than 2 million volunteers.

A Brief Summary of Quality Improvement (QI) Research in Oklahoma

In 1999, researchers at the University of Oklahoma Health Sciences Center (OUHSC), in collaboration with clinician members of the Oklahoma Physicians Resource/Research Network, a primary care practice-based research network established 5 years earlier,² began a series of studies to determine the best ways to help primary care practices improve their care processes. The earliest studies were funded by the Oklahoma Foundation for Medical Quality and the Oklahoma Healthcare Authority. Subsequent projects have been funded by the U.S. Agency for Healthcare Research and Quality, the National Institutes of Health, and the Robert Wood Johnson Foundation.

One of the first lessons learned was the depth and breadth of practical wisdom that already exists within community practices but is rarely shared across practices. The research team learned how to find these "best practices" by conducting performance audits and focusing on the highest performers. They learned that clinicians are more likely to implement methods found to be successful by their peers than recommendations from journals or other "experts." But they also found, as others had, that there is still value in academic detailing from a trusted academic expert that includes an overview of the evidence, a review of what high performing practices seem to be doing, a facilitated discussion of current methods, and an agenda for improvement.

The team confirmed that clinicians always think they are doing a better job than they actually are, and so performance feedback is an important motivator for change. Because physicians tend to be competitive people, it also helps to provide data comparing their performance to that of their peers. They learned to repeat the performance evaluations monthly during the change process to give practices a sense of their progress.

Finally, the researchers learned that improving processes of care while continuing to see patients is difficult, that most primary care practices are resource poor, and that even a little assistance during the change process helps a lot. Borrowing the concept of practice facilitation from England and Canada, they began employing practice enhancement assistants (PEAs) who spend ½ day in each practice for periods of about 6 months to help them overcome obstacles to change. The fully evolved QI process then included initial and monthly performance

evaluations, identification and clarification of best practices, academic detailing, and practice facilitation. Several cluster randomized trials (randomization by practice) showed that this method was consistently effective. The team has also experimented with local learning collaboratives, monthly noon conferences involving representatives of small numbers of practices working on the same care processes, and this seems to have some additional value.²⁻¹⁰

It was only after the research team became comfortable with this process that they realized several things. First, it was clear that success was dependent upon relationships, including relationships between practices, relationships with the academic detailer, and relationships with the facilitator, and it was clear that relationships took time to build. When working with new practices it often took 2-3 months for the facilitator to bond sufficiently with the clinicians and staff to have any positive impact. Second, the facilitators were spending large amounts of time travelling from Oklahoma City and Tulsa to practices around the state at significant cost. At some point it occurred to the team that what they had "discovered" looked almost identical to what the farming community had figured out 100 years earlier.

Primary Care Extension

The Oklahoma research team and several others around the country began to wonder what "Primary Care Extension" would look like and how it might be funded. Because these conversations began during the crafting of the Affordable Care Act, they were able to bring their ideas to United States Senate staffers working with the Health, Education, Labor, and Pensions (HELP) Committee. The result was Section 5405 of the final bill authorizing the establishment of a "Primary Care Extension Program" that would "provide support and assistance to primary care providers to educate providers about preventive medicine, health promotion, chronic disease management, mental and behavioral health services, and evidence-based and evidence-informed therapies and techniques, in order to enable providers to incorporate such matters into their practices and to improve community health by working with community-based health connectors (referred to in this section as Health Extension Agents)." An article was published in the *Journal of the American Medical Association* entitled, "A health care cooperative extension service: Transforming primary care and community health"¹¹ and other similar publications followed in close succession.^{12,13}

Examples of "best practices" began to emerge. The University of New Mexico (UNM) was an early adopter of the health extension idea and had established Health Extension Rural Offices (HEROs) and health extension agents in communities throughout the state whose role was to help communities to identify health resource needs and communicate those to the Office of the Vice President for Community Health.¹⁴ The UNM and New Mexico State University, the state's land grant college, when possible, identified and supplied the needed resources if available. The focus was not on primary care practices per se, but primary care practices