The state of quality in the US health care system has been examined by many governmental and nongovernmental organizations. The commonly held position of these organizations is that the quality of care in the United States lags behind the quality of care delivered in many developed and developing nations in several clinical areas.¹ One postulated reason for this is a lack of instruction in community assessment and implementation of quality improvement projects.

To improve instruction in health care quality and to allow medical students a hands-on experience in clinical quality improvement, the faculty of the Department of Family Medicine at the University of Nebraska College of Medicine (UNCOM) designed and implemented a student-driven quality improvement project for third-year medical students in the Family Medicine Rural Preceptorship. This program has been in place since 1998.

Educational Context

The Family Medicine Rural Preceptorship at UNCOM is a required 8-week rotation for 120 MS-3 students annually. Rotation sites include rural communities across Nebraska ranging in population from 1,100 to 40,000. Students live in the community during the preceptorship and are immersed in the practices of family physician preceptors in the community.

Project Description

Third-year students, in consultation with their precepting physician, select a group of patients as a study population (eg, “My study population is all men aged 18–65 years involved in agribusiness in Thistown, Nebraska.”). Students then select a problem affecting that population (eg, “The problem to be studied is tetanus immunization status in my selected population.”). Students complete a review of the medical literature pertinent to their selected problem and population. The students use this information to develop criteria for medical record retrieval and review or to design a questionnaire.

Because of the relatively short time that the students spend in the community, students are only required to review 20 patient charts or complete questionnaires on 20 patients. The project is designed to allow students to learn about the process of quality improvement, not to require students to perform an exhaustive quality improvement chart review.

After the chart review or questionnaire is completed, students compile and analyze their data, formulate an evidence-based plan for remediating any deficiencies identi-
fied, and present recommendations to the precepting physician. At the end of rotation, students turn in a 12–15-page project write-up. The students present a summary of their project as well as lessons learned to the other students who have just completed the rural preceptorship. The write-up is used for evaluation and grading.

The top eight to 10 projects each year are displayed as posters on the UNCOM campus. Cash awards, provided by the UNCOM Department of Family Medicine and the Nebraska Academy of Family Physicians, are given for the best projects.

Discussion

The quality improvement project is an optional activity, but more than 98% of the students complete a project during their rural preceptorship. Students report that the quality improvement project requires about 3–4 hours each week during their preceptorship. Some preceptors initially had reservations about this activity but, over time, many have become advocates of the process. Some precepting physicians have integrated aspects of the projects into their Maintenance of Certification process.

Students are encouraged to select topics of interest to themselves and their precepting physician. This arrangement has led to projects that have proven useful in improving care in the preceptor’s community. Project topics have included mammogram rates, colonoscopy rates, lipid screening rates, rural ambulance response time improvement, community water fluoridation, smoking cessation, and teen pregnancy prevention.

More than 1,000 medical students have successfully completed projects in Nebraska communities since the inception of the program. UNCOM student projects have won national awards at a variety of medical education conferences.

Sample project instructions, descriptions, timelines, examples of student write-ups, and other pertinent documents can be obtained by contacting the author at ppaulman@unmc.edu.

Conclusion

The UNCOM Clinical Quality Improvement Project has been a successful collaboration between the College of Medicine, community family physician preceptors, and the Nebraska Academy of Family Physicians.

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References