

Final Report in 2009

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see how well the new practice model works for patients.

"This project has a vision, plan, and purpose nothing short of changing the health care system in this country," said Dr. Larry Fields, AAFP president, at a press conference sponsored by the academy. "Far from being the collapse of primary care that was recently predicted, we're announcing the rebirth of that care."

Dr. Fields was referring to a recent report by the American College of Physicians which stated that without major reforms in the health care system, "within a few years there will not be enough primary care physicians to take care of an aging population with increasing incidences of chronic diseases."

The dwindling number of medical students going into family medicine is a major concern. Once robust, residency-fill rates by U.S. seniors are now hovering around 41%. "We need to improve the status of family medicine," said TransforMED participant Dr. Steve Cross of Central Oregon Family Medicine in Redmond.

AAFP invested \$8 million in the development of the TransforMED initiative, with much of that money going

toward the funding of outside consultants to help guide the participants. Although the practices will be required to have an EHR system, TransforMED will not pay for the systems because the organization does not intend to pay for such systems once the demonstration project is finished. "If we gave the practices a bunch of money to do stuff [and then we don't continue doing that], we haven't learned anything," Dr. McGeeney said.

About 40% of the participants don't have EHR systems already in place, and they will have to pay at least \$20,000 each to get such systems up and running. But for many, such an expense is viewed as the unavoidable cost of remaining in practice in the 21st century.

In return, those randomized to the "facilitator" group will receive about \$50,000 each in consulting services. "They will have a lot of hand-holding," Dr. McGeeney said in an interview.

A final report is expected in early 2009, although key lessons will be shared throughout the study period, according to the academy.

The TransforMED participants were selected from a pool of 300 applicants, all of whom completed a 17-page questionnaire aimed at assessing their financial viability,

stability, and reasons for wanting to participate. By and large, every participant interviewed for this story expressed a desire to be on the forefront of innovation, rather than continue to see the specialty fall out of favor.

For Dr. Cross, the possibility of offering his patients open-access scheduling is intriguing, but he is concerned that he will have to limit the number of patients he sees in order to make it work.

For Dr. Theresa Shupe, participating in the demonstration project will be just one of many changes she is undergoing as a family physician. In June, she will leave a 12-physician group practice in Manassas, Va., to start a solo practice in



"We need to improve the status of family medicine," said Dr. Steve Cross, shown with Carol Conley, R.N., of Redmond, Ore.

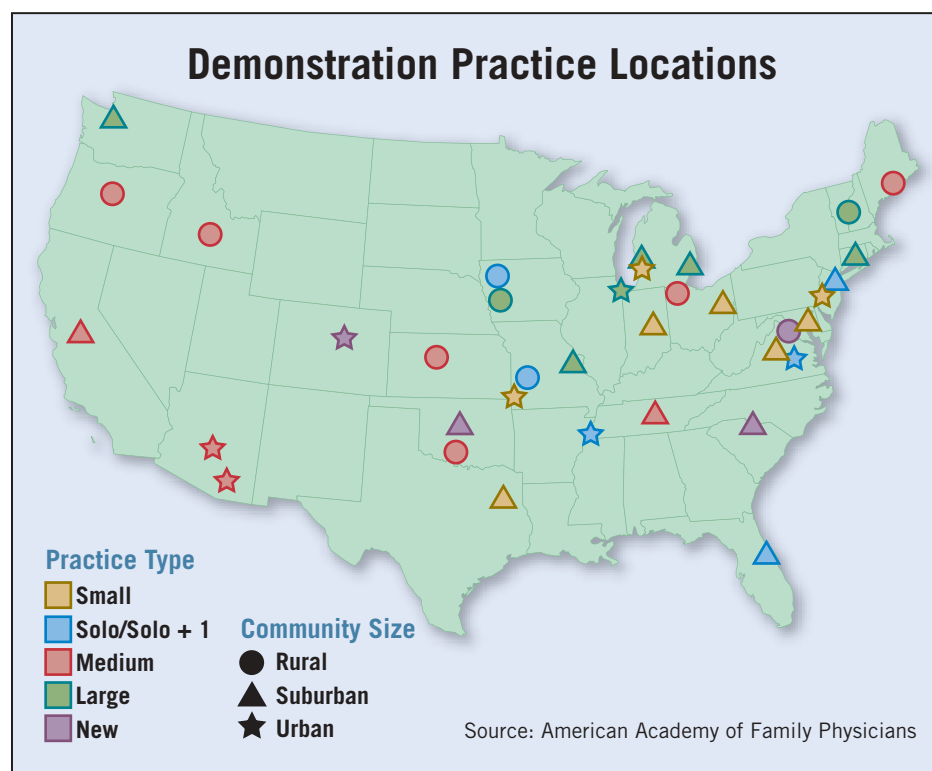
Haymarket, Va. "I had already decided to [implement a lot of these changes] before TransforMED," said Dr. Shupe, who saw a practice redesign video at the AAFP annual meeting and felt that it dovetailed well with her own plans.

"I look forward to having a medical home for people, providing better quality care, and improving the lives and health of my patients," she said. In addition, Dr. Shupe expects the project will help her bottom line. "I'm not a business person and I don't want to go broke, so I'm looking forward to getting help with the financial logistics, learning how to negotiate contracts with insurance companies."

The TransforMED project is getting moral support from the federal government. Dr. Helen Burstin, director of the Center for Primary Care at the Agency for Healthcare Research and Quality in Rockville, Md., said she liked the project because "it is uniquely focused on practices that don't often get into demonstration projects," including small, rural practices. The agency is "ready and willing" to help the project in any way it can—for instance, by providing it with patient satisfaction measurement tools, she said.

Dr. Trent Haywood, deputy chief clinical officer for the Office of Clinical Standards and Quality at the Centers for Medicare and Medicaid Services, Baltimore, said that his agency "was going to look pretty [intently] at the results of this activity. This aligns with where CMS has been on its quality agenda." And, he added, "We are never ashamed ... to steal from great ideas."

Kathryn DeMott contributed to this report.



PDA-Based Drug Dose Calculator Slashes NICU Med Errors

BY ERIK GOLDMAN
Contributing Writer

OLD GREENWICH, CONN. — A PDA-based drug dose calculator system brought about a marked reduction in medication errors at a university's neonatal intensive care unit, Dr. M. Kabir Abubakar reported a meeting of the Eastern Society for Pediatric Research.

The error reduction, from 1.77 per 100 orders to 0.66 per 100 orders, occurred within a 12-month period after Georgetown University Hospital's NICU mandated that all staff use the Neofax drug database system. The improved performance was all the more remarkable because it occurred during a period of rapid growth in the hospital's neonatal and perinatal departments, with the number of NICU drug orders almost tripling from the previous year.

According to Dr. Abubakar, of Georgetown's division of neonatology, medication errors are a significant contributor to

neonatal morbidity in the NICU setting. Neonates are highly vulnerable, and a misplaced decimal point in a dose calculation can have huge clinical implications.

As part of its ongoing quality improvement efforts, MedStar Health—the hospital system that owns Georgetown—put up the funds to provide PDA-based Neofax dose calculators to all NICU physicians, residents, fellows, nurse-practitioners, and dispensing pharmacists.

Following a training period, staff was required to use the PDA for all NICU drug orders. Pharmacists and bedside nurses cross-checked all physician dose calculations using the same system.

"It took about 3 months to get everyone trained and compliant with the system," said Dr. Abubakar in an interview. "There was some resistance, of course, but the

bigger problem was that initially a lot of people were forgetting or losing their PDAs. Eventually, we had to install them in stationary places by every four or five NICU beds."

The ultimate payoff, in terms of reduced errors, was tremendous.

In 12 months, the Georgetown University Hospital team was able to reduce its total medication error rate from 1.77 to 0.66 per 100 orders.

In the 12 months following adoption of the system, the Georgetown team was able to reduce its total medication error rate from 1.77 to 0.66 per 100 orders. Prescription errors dropped from 1 per 100 orders to 0.3 per 100.

There was a 62% reduction in the number of 10-fold dosing errors, that is, errors of decimal point placement, in the year following implementation of the system. Dispensing and administration errors were also reduced, although the baseline

numbers for these types of errors were fairly low.

The total number of drug orders at the NICU increased from 13,557 in the year prior to adoption of the PDA system to 31,680.

"The hospital system had a growing number of perinatologists, so our unit was seeing a big increase in the number of patients, and consequently, an increase in the number of drugs ordered," Dr. Abubakar said at the meeting, cosponsored by the Children's Hospital of Philadelphia.

"We would have expected this to increase the error rate, but we saw just the opposite."

The Palm-based system itself deserves only part of the credit for the improvement, he noted.

Implementation of a system like this naturally prompts clinicians and other staff members to pay closer attention to the accuracy of their prescribing and dose calculations.