

# Innovative Web-based tool helps doctors improve care

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A Web-based tool that extracts information from the electronic medical record (EMR) helps primary care physicians improve care and manage their entire panel of patients. Those are the findings of two new Kaiser Permanente studies - the first to examine the effectiveness of a population care tool in a large, diverse patient population.

The first study, published today in *The American Journal of Managed Care*, found that the Panel Support Tool (PST), helped doctors improve care for patients with diabetes and/or heart disease. The other study, whose findings appeared in *Population Health Management*, found that the PST also helped doctors provide better preventive care for healthy patients.

The Panel Support Tool (PST), devised and implemented by doctors at Kaiser Permanente, is a Web-based tool that helps [primary care physicians](#) manage care for individual patients, groups of patients or their entire panel. It does this by comparing the care the patient is receiving to the care that is recommended by national guidelines. For example, doctors can query the PST in advance of a patient visit to find out if that patient needs a screening test or vaccine. They can ask the PST to display a list of all of their patients who are overdue for a mammogram or [colon cancer](#) screening test or a list of their diabetic patients whose blood sugar levels are too high, or those who need a foot or eye exam.

“Patients in the U.S. receive only about half of the preventive and follow-

up care now recommended by national guidelines. Our study shows that, by using the innovative Panel Support Tool, in conjunction with the electronic medical record, we can provide patients with more of the care they are supposed to receive,” said Adrienne Feldstein, MD, MS, lead author of the AJMC study and senior investigator at the Kaiser Permanente Center for Health Research in Portland, Oregon.

“Doctors and staff love the Panel Support Tool because it makes primary care practice more efficient by addressing the needs of all of their patients,” said Yvonne Zhou, PhD, Senior Manager of Analytics & Evaluation at Kaiser Permanente. Zhou was lead author of the Population Health Management study. “Harnessing the power of immediately available and complete patient information, the PST allows primary care providers to rapidly examine what is recommended for an individual patient, a group of patients with a specific condition, or their entire panel of patients.”

The retrospective, longitudinal study in the October issue of [The American Journal of Managed Care](#) followed 204 primary care teams who were using the Panel Support Tool (PST) to manage care for 48,344 patients with diabetes and/or heart disease. After three years, for patients with diabetes, the percentage of care recommendations met every month increased from 67.9 % to 72.6%; for heart disease patients, the percentage rose from 63.5% to 70.6%

The AJMC study used 2005 as the pre-intervention, 2006 as the implementation, and 2007 as the post-intervention periods. Care recommendations measured included blood sugar levels, blood pressure screening and control, retinopathy, nephropathy, foot screening, use of aspirin, statins, angiotensin converting enzyme inhibitors and beta blockers, and influenza and pneumococcal vaccination.

The second study, published online in Population Health Management,

involved 207 primary-care teams that were using the PST to manage the care of 263,509 adult patients, some who were relatively healthy and others who have chronic diseases. The study looked at 13 different care recommendations and found that after 20 months, the PST improved performance from 72.9% to an average of 80%. Researchers found that during the first year of tool use, performance in delivering the care recommendations improved to a statistically significant degree every four months.

The PST is a Web-based application that is tightly integrated with KP's HealthConnect®, the world's largest private-sector electronic record. Providers can toggle between the PST and KP HealthConnect, which includes comprehensive documentation of patient care in all settings including the lab, pharmacy, radiology, and other ancillary systems.

The PST monitors recommendations pertaining to medication management and screening for comorbidities in six chronic conditions: asthma, diabetes, coronary artery disease, heart failure, hypertension, and chronic kidney disease. The tool also monitors [preventive care](#) measures, such as administering adult immunizations and screening for breast, cervical, and colorectal cancer, hyperlipidemia, and osteoporosis. For each care recommendation, the Panel Support Tool indicates what actions need to be taken, if any.

Most recommendations monitored by the tool are derived from the Healthcare Effectiveness Data and Information Set (HEDIS), a tool developed by the National Committee for Quality Assurance and used by more than 90% of America's health plans to measure performance on important dimensions of care and service. Other recommendations reflect organizational priorities based on peer-reviewed literature and/or internal research at Kaiser Permanente.

Once a day the PST extracts data from KP HealthConnect and other data repositories and automatically updates all patient-level and panel views. When patients obtain needed screening or lab tests or fill prescriptions, the panel support tool reflects that activity the following day.

The Population Health Management study found that the best ways to improve care using PST include querying the system for care gaps for the entire panel every two to four weeks, sending standardized letters or secure email messages around the time of members' birthdays that identify all needed care, having medical assistants or nurses call patients to schedule screening tests, and having pharmacists review patients' records for needed care when refilling medications. While the PST is a great tool to help physicians take better care of their patients it does not override shared decision making between the doctor and patient.

More research is necessary to optimize results and determine if patient outcomes improve with improved care delivery.

Provided by GolinHarris International

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