



What if each of us had a personal reminder system that told us when we needed to get preventive care? Would we do a better job of caring for our own health?

Staff from Kaiser Permanente Southern California's Regional Complete Care team, which manages a collection of centralized programs to address patient health needs, thought this was an intriguing possibility.

About 6 years ago, the team decided to test the idea with a small-scale pilot. Staff distributed a wellness journal to women at Kaiser Permanente's South Bay Medical Center. The compact booklet provided a checklist of common preventive care recommendations. Women could use the list to manage their own health.

It was a good concept, but the paper-based format wasn't scalable. The booklets were expensive to produce and were outdated almost as soon as they were printed.

In April 2012, the team began working on an online version. By November 2012, the new tool was up and running.

---

Above (inset photo): Wahid Wakach, Andre Ahuja

Opposite page: Dr. Ernest Shen, Dr. Shayna Henry

The online Personal Action Plan, or oPAP, provides personalized information about gaps in preventive health care, such as overdue screenings or tests. It also points members to health education resources, such as smoking cessation or weight management programs.

"The online plan gives patients and caregivers very simple information about individual care needs," said Andre Ahuja, MSc, assistant director for the Complete Care Support Programs. "It empowers users by informing them what they need to stay healthy and provides easy ways to close those gaps."

## A rigorous approach to program evaluation

In 2014, regional leadership asked the Division of Health Services Research & Implementation Science from the Department of Research & Evaluation to evaluate the effectiveness of the program.

"The costs of implementing oPAP were relatively low compared to other interventions to encourage members to take care of health care tasks," said Shayna Henry, PhD, a post-doctoral research fellow. "Leadership felt it was important to evaluate the program to learn more about how it worked."



The online Personal Action Plan, or oPAP, provides personalized information about gaps in preventive health care, such as overdue screenings or tests. Research has demonstrated that people who used oPAP closed care gaps at a higher rate than those who did not use it.

There were a few challenges in bringing the rigor of research to the evaluation process. Quality of data posed the first challenge. As is often the case, data pulled from our electronic health record, Kaiser Permanente HealthConnect, were organized differently than typical research data.

Researchers also faced a statistical modeling challenge. “We used something called propensity score weighting,” said Ernest Shen, PhD, the lead biostatistician scientist for the Division of Health Services Research & Implementation Science. “That essentially creates a super-population where you have a more balanced distribution and more fair comparisons can be made.”

### Positive results reinforce value of oPAP

The final evaluation showed that people who used oPAP closed care gaps at a higher rate than those who didn’t use it. This was especially true for cancer screenings. Members who used the online tool were:

- 9% more likely to receive a mammogram.
- 9% more likely to be screened for colorectal cancer.
- 6% more likely to receive a Pap test.
- 12% more likely to schedule and complete routine blood sugar (HbA1c) tests.

Somewhat to the research team’s surprise, however, there was not a strong association between oPAP use and vaccine uptake.

“One factor may have been timing,” said Dr. Henry. “The study period was from late winter forward. For the flu vaccine especially, we may have missed the initial wave of people who got their shots in the fall.”

### Evidence supports program expansion

Positive results from the study, published in the *American Journal of Preventive Medicine* in January 2016, helped propel the online Personal Action Program forward.

“The results really reinforced that we’re on the right track,” said Ahuja. “The study helped us focus in on areas where we know we can make a bigger difference.”



The oPAP platform has expanded well beyond the initial collection of care gaps, which were mainly geared toward adult primary care. Newer modules support pediatric and obstetric care needs. Members can now access oPAP on a mobile- and tablet-friendly user interface.

In 2015, the team introduced a new module, which provides personalized tools to patients waiting for kidney transplants. By 2016, the team rolled out another new module for patients with complex care needs: men with prostate cancer.

“We really like to challenge the norm,” said Ahuja. “We like to do things that haven’t been tried before.”

That commitment to innovation has earned accolades for the program. In 2015, oPAP received Kaiser Permanente’s James A. Vohs Award for Quality.

“The future of the online Personal Action Plan is very exciting,” said Michael Kanter, MD, regional medical director of Quality and Clinical Analysis, Southern California Permanente Medical Group, who has been a champion for the program since its inception. “Knowing that we have evidence behind the program—that’s smarter medicine.”