ALL: Dissemination of Cardiovascular Risk Factor Treatment Among Diabetic Patients in Federally Qualified Health Clinics

STUDY BACKGROUND
Our research team began with a program that was implemented successfully across the Kaiser Permanente (KP) health plan nationwide and adapted it for 11 community health centers (CHCs) in Portland, Oregon. While large health plans can devote substantial resources to developing new quality improvement initiatives, federally funded clinics can rarely do the same. With grant funding, in partnership with the OCHIN network of safety net clinics, our team adapted KP’s quality improvement program for clinics that serve low-income patients.

The program, called the ALL Initiative, used the electronic health record (EHR) to prompt providers to prescribe cholesterol-lowering and blood pressure-lowering medications for patients with diabetes, as recommended by national guidelines. KP’s ALL Initiative targeted patients with diabetes who were at risk for heart disease either because of their age (55-75) or because they also had coronary artery disease. In 2009, an internal study estimated that KP’s program led to a more than 60% reduction in heart attack and stroke among targeted patients who took the medications for 1-2 years.¹

Our goal was to prevent heart attack and stroke among mostly low-income patients whose diabetes placed them at risk. We targeted all adults with diabetes at the 11 study clinics—6,500 patients who were indicated for a cholesterol-lowering medication and a blood-pressure lowering medication.

The ALL intervention began in June 2011 and ran until May 2015; six clinics adopted it in June 2011 and five clinics adopted it a year later. To find out whether the program changed prescribing, we calculated the percentage of eligible patients who received appropriate prescriptions each month. When the study began, fewer than half of patients indicated for study medications (about 48%) had prescriptions for both a cholesterol-lowering medication and a blood-pressure lowering medication.

When the study began, fewer than half of patients indicated for study medications (about 48%) had prescriptions for both a cholesterol-lowering medication and a blood-pressure lowering medication noted in the EHR. One year after the intervention, 62% of patients in the ‘early clinics’ and 57% of patients in the ‘late clinics’ had prescriptions for both these medications.²

QUALITATIVE METHODS
We also collected qualitative data to understand how and why prescribing changes happened. Our goal was to understand and resolve possible barriers to implementing the program. Our team used an ethnographic approach to understand the program from the perspective of clinic providers and staff.³ Two researchers led our qualitative evaluation, assisted by four site coordinators from the clinics. Each organization chose a highly regarded employee as its site coordinator; these coordinators helped us tailor our methods to fit into clinic cultures and workflows.

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We collected several types of qualitative data, including weekly diary entries by the site coordinators detailing staff feedback, our documented observations of clinic workflows, and transcripts of formal and informal interviews with providers and clinic staff who interacted with patients and with the EHR tools. We also reviewed more than 200 documents and observed discussions among clinic staff.

As we piloted our data collection tools, we modified them. Our original diary form was highly structured, consisting of five boxes for different types of comments. However, these were often left blank. In the study’s second year, we used an open-ended request for insights, and trained site coordinators on the kind of information we were looking for. Using the new form, we received much longer and more detailed diary entries.

We analyzed our qualitative data by reading and coding passages of text, and reflecting on the data, all guided by the constant comparative method. We identified ambiguities in the data and explored these in further data collection. Our interpretations were informed by observing workflows and by presenting our early results to clinic leadership for feedback.

**KEY FINDINGS FROM QUALITATIVE METHODS**

We shared our results with the larger study team and clinics as the implementation unfolded. Our initial analysis of diary entries pointed to trust issues. Some physicians reported that they mistrusted guidelines, given how often guidelines change. Some felt the evidence for prescribing cholesterol-lowering medications to younger patients was unclear or disagreed with the guidelines. Some did not trust the intervention’s electronic alerts, because past alerts at some clinics had been inaccurate. These early findings led to changes in the research team’s communication to the clinics. To counter mistrust, we emphasized the evidence underlying the guidelines.

We found that it was possible to implement the ALL program in CHCs by adapting the program to each clinic’s needs, but this required considerable support. While KP can use top-down strategies to encourage changes, safety net clinics require a more tailored approach. Having a stable, trusted, and active site coordinator as a study champion was essential. We also learned that patients may have been taking a study medication, even if it was not documented in the EHR. To save money, some patients bought medications outside of the U.S. or used medications family or friends were no longer taking. These findings and others will help us to improve future initiatives.