Reducing Disparities in the Primary Prevention of Cardiovascular Disease

Principal Investigator: Stephen Persell, MD MPH
AHRQ Grant Number: P01 HS21141

Cardiovascular disease (CVD) is the leading cause of death for both men and women in the United States. Statin drugs decrease CVD illness and mortality in people at high risk. In the overall population, statin use is increasing and CVD mortality is decreasing, but there are disparities in statin use among people of different race, ethnicity, and socioeconomic status. The goal of this project is to understand these disparities and improve the appropriate use of statins among all high risk patients.

The main activities of the project included:

- **Identification**: We used electronic health record (EHR) data at three community health center networks to identify patients at increased risk for developing CVD who are not already being treated with a statin.
- **Counseling**: Primary care teams were supplemented with care managers who reached out to patients by phone and mail to promote awareness of the patient’s personal CVD risk, educate them about what they can do to prevent CVD, and schedule a primary care appointment if needed.
- **Follow-Up**: Care managers used the EHR to communicate the outcome of the counseling with primary care providers and re-contacted patients who had not had a primary care visit within 3 months.

**Big Questions**

1. Can health information technology (HIT) in the community health center setting be used to direct population level health management for primary CVD prevention?
2. Will outreach to patients who may be unfamiliar with their personal risk of CVD help them successfully address this risk?
3. Will patients who receive outreach from care managers seek out and obtain statin treatment to lower their CVD risk?
4. What will the cost per patient in the intervention group be compared to that of patients in the usual care group?
Reducing Disparities in Primary Prevention of Cardiovascular Disease

What Did We Learn?

- Using population-level EHR data to identify patients at risk for developing CVD and then reaching out to those patients led to a large increase in the proportion of patients who obtained primary care visits that addressed cholesterol treatment within 6 months (26.5% in the intervention group vs. 11.6% in normal care).

- The increase in prescribing statins as a result of the intervention was modest (10.1% in the intervention group vs. 6.0% in the normal care group). Many patients who discussed cholesterol treatment with their primary care clinician did not receive a recommendation to start taking a statin.

- Barriers to at risk patients starting a statin regiment include:
  - Primary care clinicians focus on LDL (bad) cholesterol levels rather than an individual’s overall cardiovascular risk
  - Patient reluctance to start a new medication

- Many patients who were prescribed a statin reported that they were still taking it about 1 year later.

What Does This Mean?

Health information technology can be used to identify patients at high risk for CVD and to direct population health interventions in community health center settings. The integration of a care manager into the primary care team in order to motivate patients was successful in this study. Additional research is needed to fully understand if care managers can be effective at facilitating care in community health centers and in patient centered medical home settings.

Interventions that are directed at clinicians to promote statin prescribing (rather than aimed at patients, as was done in this study) may more effectively increase appropriate statin use and lower CVD risk in identified patients.

Where to Learn More

Articles describing the findings from this study are in production.

For more information on this project please visit: [http://prevention-for-all.org/](http://prevention-for-all.org/)