

# Can Doctors Change? Attempts to Improve Adherence to the 2013 Statin Guidelines for Diabetic Patients at an Urban Academic Family Medicine Clinic

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## Abstract

In November 2013 new statin guidelines were released. Generally, physicians are slow to adopt new guidelines and adherence to new guidelines often remains low even years after they have been issued. In this study, multiple interventions, including patient handouts, email reminders, and education sessions were implemented to increase adherence with new statin prescribing guidelines in a large urban practice. The numbers of prescriptions were analyzed for 6 weeks prior to and 6 weeks after the interventions. Statin prescribing in diabetic patients not already on a statin pre-intervention was 11.7% and post-intervention was 13.0% (p-value 0.5936). There was a small increase in prescribing post-intervention but no statistical significance. The study was limited by multiple factors leaving room for further research in this area.

## Background

In November 2013, the AHA and ACC released new statin guidelines targeting four groups who would benefit from moderate to high-intensity statin therapy to reduce ASCVD risk. One of these groups was diabetic patients between the ages of 40 and 75.

Generally, physicians are slow to adopt new guidelines and adherence to new guidelines often remains low even years after they have been issued. This leads directly to suboptimal patient outcomes and resource wasting.

Research in this area has garnered considerable interest in recent years. Numerous studies have looked at various methods to improve guideline adherence and have compared their effectiveness. None has emerged as clearly superior and there is still work to be done to determine which intervention(s) is best.

At Jefferson Family Medicine, there are many diabetic patients who are not yet on a statin and the reasons underlying the less-than-perfect adherence with the new guidelines are complex. With our study, we aimed to improve our compliance with the statin guidelines by intervening in multiple ways to increase the number of diabetic patients on statins.

## References

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## Methods

The study consisted of three phases: 1. Pre-intervention data analysis of percentage of active Jefferson Family Medicine patients ages 40-75 years with type II diabetes who were on statin therapy versus those who were not; 2. Implementation of four different educational interventions; and 3. Post-implementation data analysis of the same population.

Four interventions were implemented in March 2015 (Figure 1).

1. Distribution of a statin education handout (Figure 2) to patients to encourage them to ask their providers about statins.
2. Posting of a flyer (Figure 2) in each exam room to prompt providers to address the need for statins.
3. Leading a teaching session for providers describing the new statin guidelines.
4. Sending a practice wide email describing the new statin guidelines

A data query was done which compiled visit information from patients between the ages of 40-75 years old with Type II Diabetes Mellitus ICD-9 codes who had never been prescribed a statin. Patients with statin allergies were excluded. The data query looked at visits 6 weeks pre-intervention and 6 weeks post-intervention. Data was analyzed using a two-tailed Fischer exact test.



Figure 1

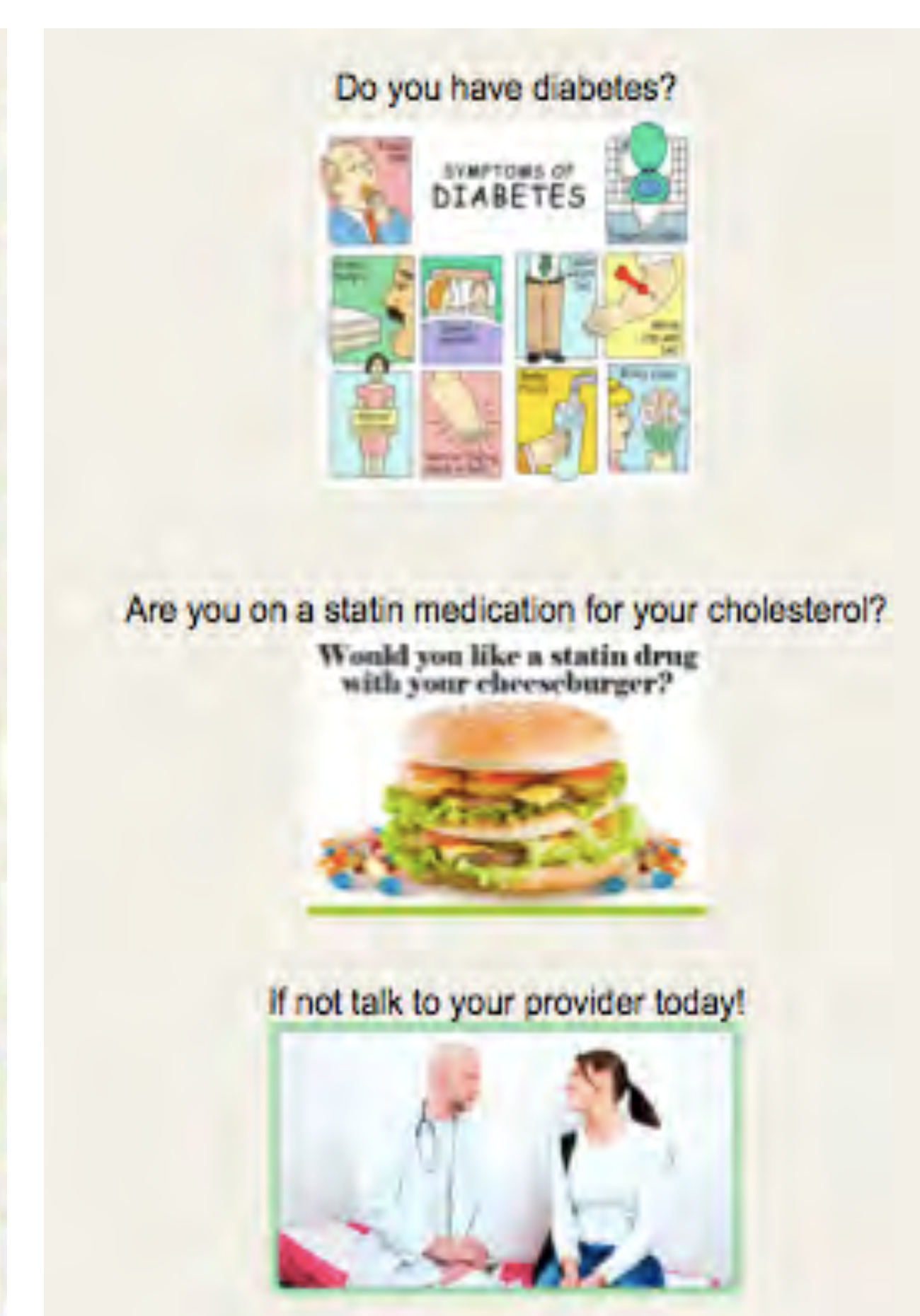
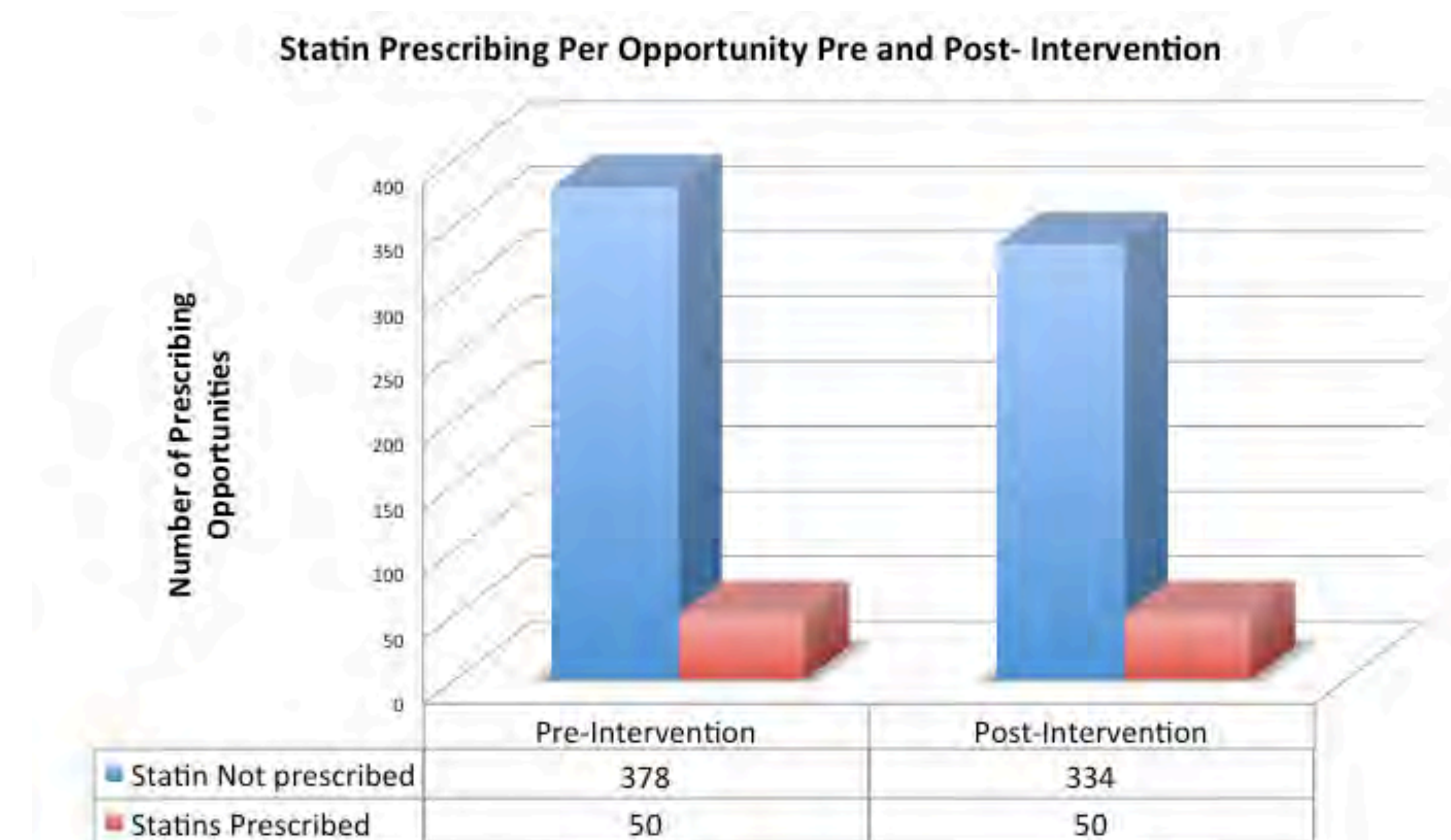


Figure 2

## Results

In the pre-intervention group, there were 1120 diabetic encounters. In 780 of these, diabetics were already on a statin (69.9%) and in 428 (30.1%), diabetics were not on a statin. Of the 428 opportunities to prescribe a statin, statins were prescribed 50 times (11.7%). In the post-intervention group, there were 1166 diabetic encounters. In 844 of these, diabetics were already on a statin (72.4%) and 384 (27.6%) were not. Of the 384 statin opportunities, statins were prescribed 50 times (13.0%). The difference in statin prescriptions for diabetic patients not already on statins pre- and post-intervention had a P value of 0.5936.



## Discussion

The aim of this study was to increase physician adherence to the new statin guidelines using a multi-faceted intervention approach. While the results showed a slight increase in percentage of statin prescriptions post-intervention (11.7% → 13.0%), the difference was not statistically significant (p=0.5936).

Physicians are notoriously slow at adapting to new guidelines. However, there are several factors that may have affected our results. The study was done at a large academic center and prior to the study period, the entire department had grand rounds on the new statin guidelines and the residents had another lecture as well. Additionally, the department has a quality care group that helps discuss and increase adherence to guidelines at all times. In addition, the reasons for non-prescribing were not evaluated and may have included patient preference despite physician recommendation.

In addition, the new guidelines recommend certain doses of statins for these diabetic patients and we were not able to query if doses were changed per guideline recommendations. In the future, it is reasonable to look further into statin prescription habits as well as comparing different interventions to see which is the best at changing physician habits.