Supplemental Appendix 1. Sensitivity Analysis

The dataset consists of the historical records (2000-2007) of patients registered with practices in 2007. Some patients might not have complete records throughout each year, and we did not capture information on patients with diabetes conditions, registered with practices during the study period, or who moved away or died before 2007. If there were systematic differences between the type of individuals who have complete records and those who do not, analysis would suffer from identification problems to make inferences about the effect of policy in the population as a whole.

For example, missing values for HbA_{1c} ranged from 56% to 19%, for cholesterol they ranged from 59% to 18%, and for systolic and diastolic blood pressure they ranged from 42% to 9.1% for 2000 and 2007, respectively.

Heckman selection model was adopted to correct for potential selection bias. The Heckman selection model consists of 2 parts. The first is the outcome equation, $y_{ijt} = X_{ijt}B + u_{ijt1}$. The second is a selection equation, which is a probit-type equation used to predicts whether somebody responds: $Z_{ijt} = W_{ijt}r + u_{ijt2}$. The dependent variable is observed if $Z > 0$. Where y are the outcome measures, X are the covariates in the outcome equation, W are the covariates in the selection equation. In these equations, rho (ρ) is the correlation between 2 error terms, ie, $\text{corr}(u_{ijt1}, u_{ijt2}) = \rho$. In our analysis, we used full information maximum likelihood (FIML) without exclusion restriction to estimate the model; therefore, the same regressors were used in both equations (X is identical to W).

We can use the *t* statistic and the Likelihood-ratio (LR) tests as a test of H_0: $\rho = 0$. Under the H_0, there is no sample selection problem. Selection bias would not be a problem if the estimated correlation coefficient, rho (ρ), is not statistically significant, and the LR test does not reject independence of the 2 error terms.[1,2]

Our findings from the Heckman model indicate that attrition bias was not an issue except for systolic and diastolic blood pressure. The magnitudes of the coefficient, however, are still consistent with the original findings (Supplemental Tables 1 and 2, at http://www.annfammed.org/content/10/3/228/suppl/DC1).

References
1. Puhani. P. The Heckman correction for sample selection and its critique. *J Econ Surv.* 2000;14(1):53-68.
2. Wooldridge J. *Econometric Analysis of Cross Section and Panel Data.* 2nd ed. Cambridge, MA: MIT Press; 2010.