

The Effects of Stand-Alone Prescription Drug Plans on Health Care Utilizations, Expenditures and Medication Adherence among Elderly Medicare Beneficiaries

Since the implementation of Medicare Part D in 2006, a growing body of evidence has shown that Medicare Part D might offset the total healthcare spending by improving the use of prescription drugs. However, little is known about the impact of different types of Part D plans – Stand-alone Prescription Drug Plan (PDPs) and Medicare Advantage Prescription Drug Plan (MA-PDs) – on health care utilizations and expenditures. This dissertation examined the association between the effect in PDPs on health care utilizations as well as expenditures, and medication adherence among elderly Medicare beneficiaries, compared to MA-PDs. Data were pooled from 2006-2010 Medicare Current Beneficiary Survey (MCBS) providing information on independent variable (type of Part D plans), primary outcomes of interest (health services use, costs and medication adherence) and covariates at the individual level. The study sample includes community-dwelling beneficiaries aged 66 years and older, who enrolled in Part D plans for the entire study year. Beneficiaries enrolled in employer sponsored insurance were excluded from the analysis. Cost-related nonadherence was evaluated based on beneficiaries' self-reports. Proportion of Days Covered (PDC) was used as a quantitative measure of Medication adherence for beneficiaries who were diagnosed with type 2 diabetes. Univariate and bivariate analyses were carried out to describe sample baseline characteristics. Naïve generalized linear models and two-stage residual inclusion (2SRI) methods were performed to examine the relationship between types of part D plans and outcomes of interest. This study included 6,596 PDP enrollees and 5,430 MA-PD enrollees. The study showed PDP enrollees generally had lower socioeconomic status, were more likely to have additional prescription drug coverage other than Part D, had more comorbidities and, were less likely to visit physicians when they felt sick than MA-PD enrollees. PDP enrollees tended to use more health services and had higher costs on total healthcare and prescription drugs, while had higher cost-related nonadherence and difficulties in affording prescription drugs, compared to those enrolled in MA-PDs. In the generalized lineal models, PDPs were associated with increased use and costs of health services. In the 2SRI, there was substantial evidence to support the selection bias into PDP plans. After controlling selection bias, PDPs was still associated with higher use and costs of all medical care (only expect hospitalizations) and prescription drugs. In addition, among diabetic

beneficiaries, PDP group was associated with lower medication adherence to antihypertensive drugs, but had similar adherence to antidiabetic drugs and antihyperlipimics, compared to MA-PD group.