

# EFFECT OF MEDICARE PART D COVERAGE GAP ON MEDICATION CONSUMPTION BEHAVIOR: CASE OF ORAL ANTI-DIABETIC MEDICATIONS

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## BACKGROUND

The Medicare part D program was introduced in January 2006 and a prominent characteristic of the program is the presence of a coverage gap in which the patients have to pay 100% of the costs out of their own pocket. Though patients with diabetes are frequently at high risk of encountering more total drug costs and higher out of pocket costs due to the chronic nature of the illness and the associated comorbidities, very few studies have examined the effects of the Medicare Part D coverage gap on medication behaviors for diabetic patients. Diabetes accounts for 32% of the Medicare expenditure and 20% of the Medicare beneficiaries suffer from diabetes.

## OBJECTIVES

To examine how entering the coverage gap in 2007 affected medication adherence rates, medication consumption behavior and resource utilization among Medicare Part D beneficiaries taking oral anti-diabetic medications with different levels of cost-sharing.

## METHODS

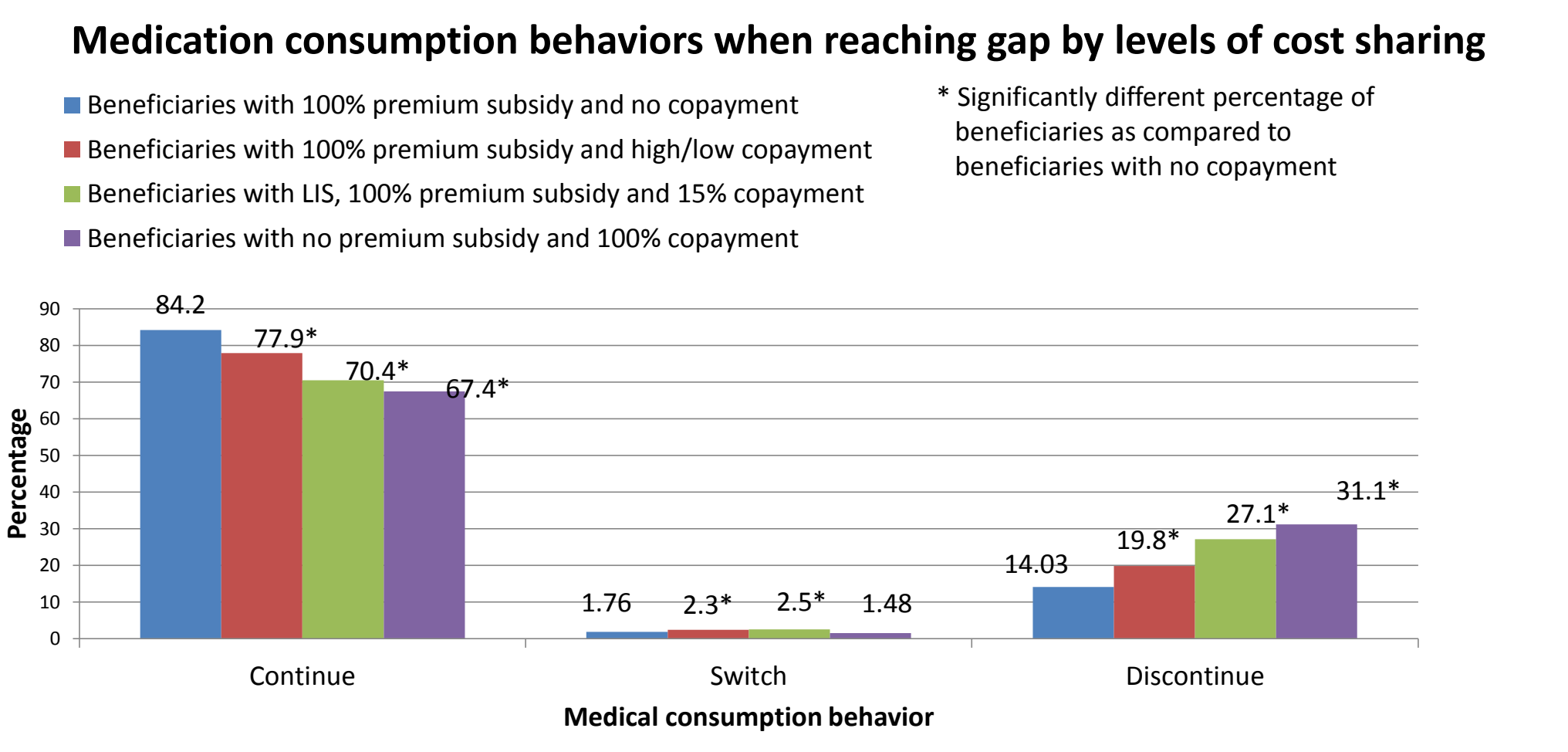
The study used a longitudinal, retrospective pre-post cohort design with a 5% national random sample of Medicare enrollees. Beneficiaries on oral anti-diabetic medications entering the coverage gap were identified using prescription drug records (n=78,224).

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## METHODS

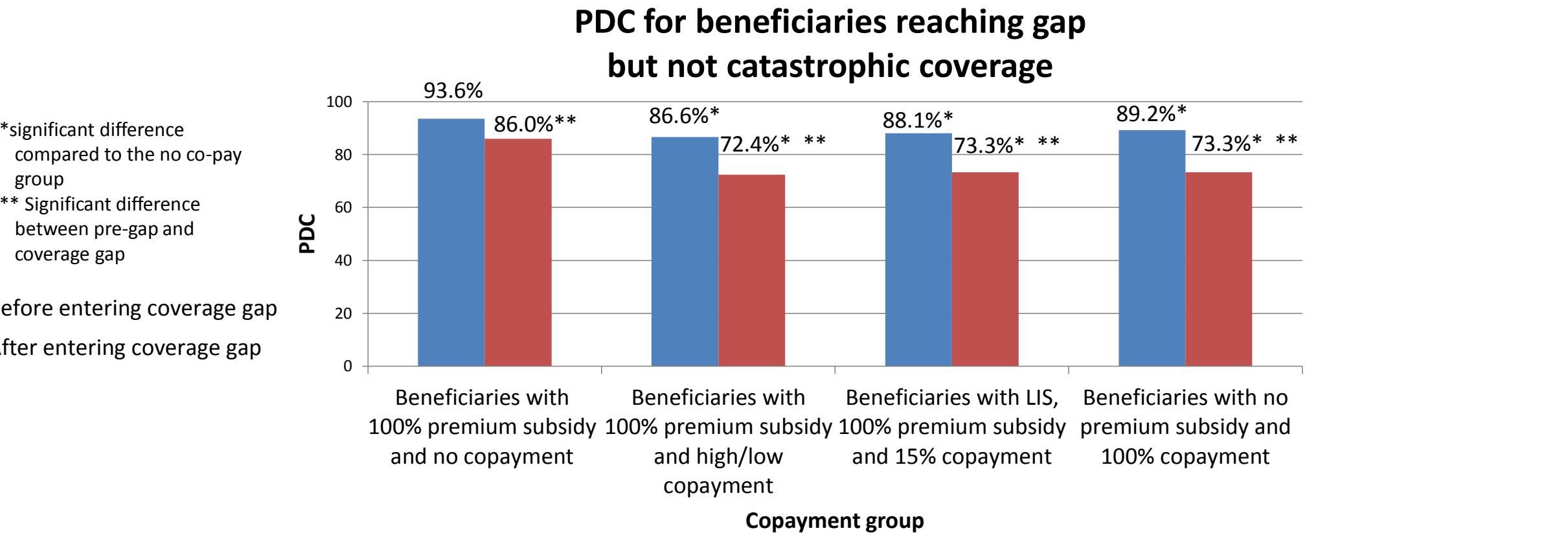
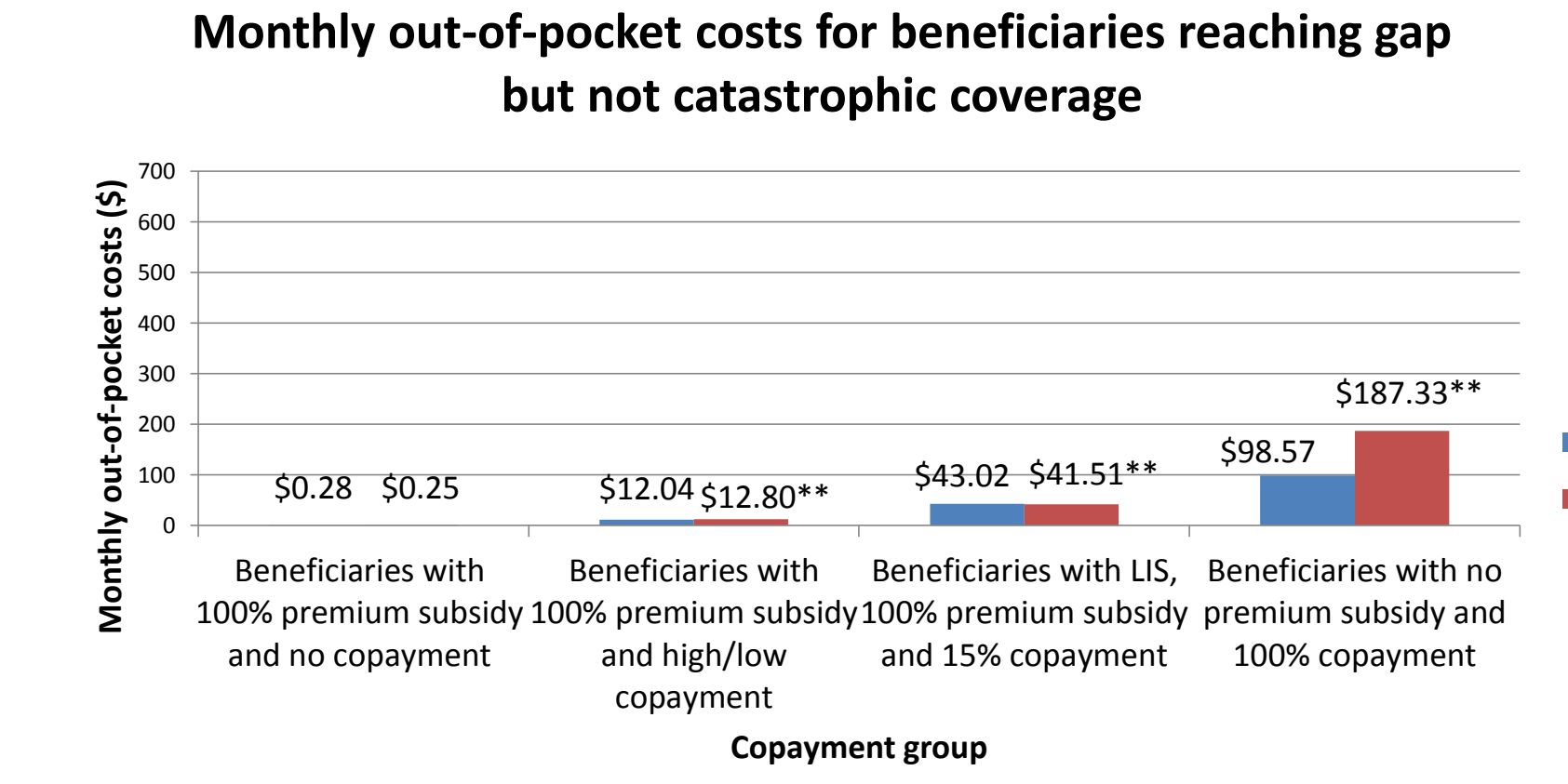
Health resource utilization measures were derived from inpatient, outpatient and carrier claims for these beneficiaries. Adherence was measured as proportion of days covered (PDC). Since 95% of the cases involve Type II diabetes and oral anti-diabetic medications are the mainstay of the treatment of type II diabetes, only oral anti-diabetic medications were included in the analysis. Also excluded from the study were: Patients utilizing skilled nursing facilities (since these patients have a lot of health complications not generally related to diabetes), and patients with Medicare Advantage prescription drug plans (since the focus of the study was on Medicare part D prescription drug plans).

## RESULTS

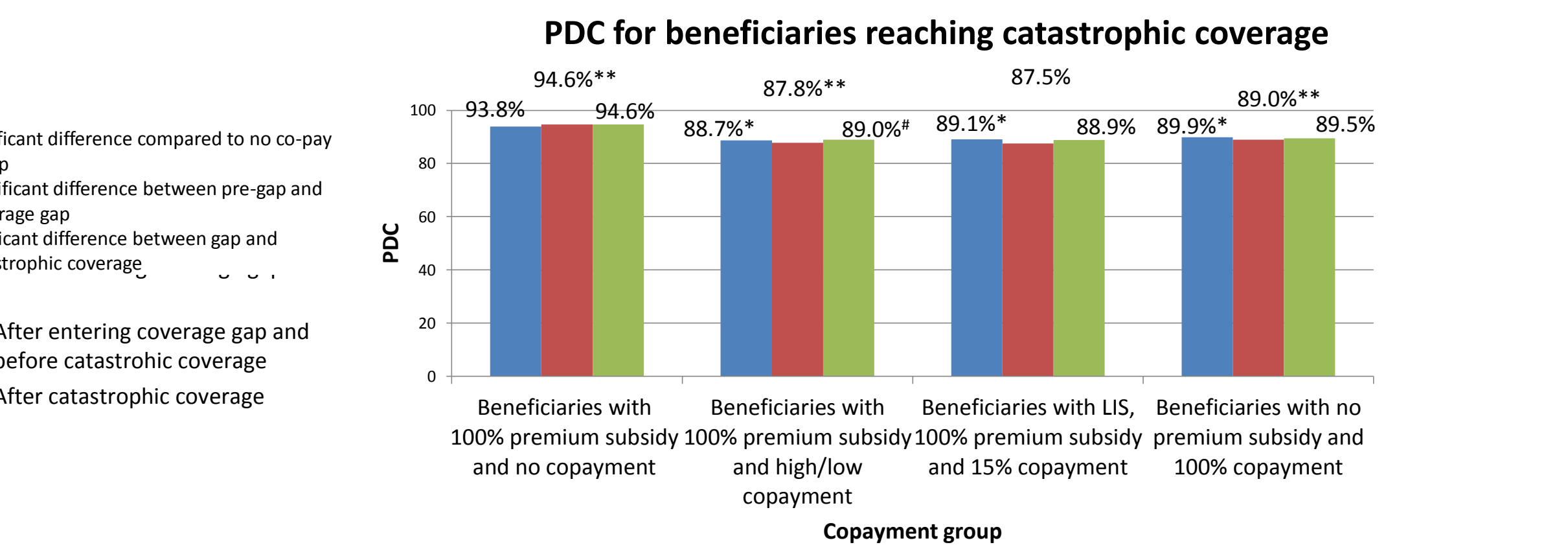
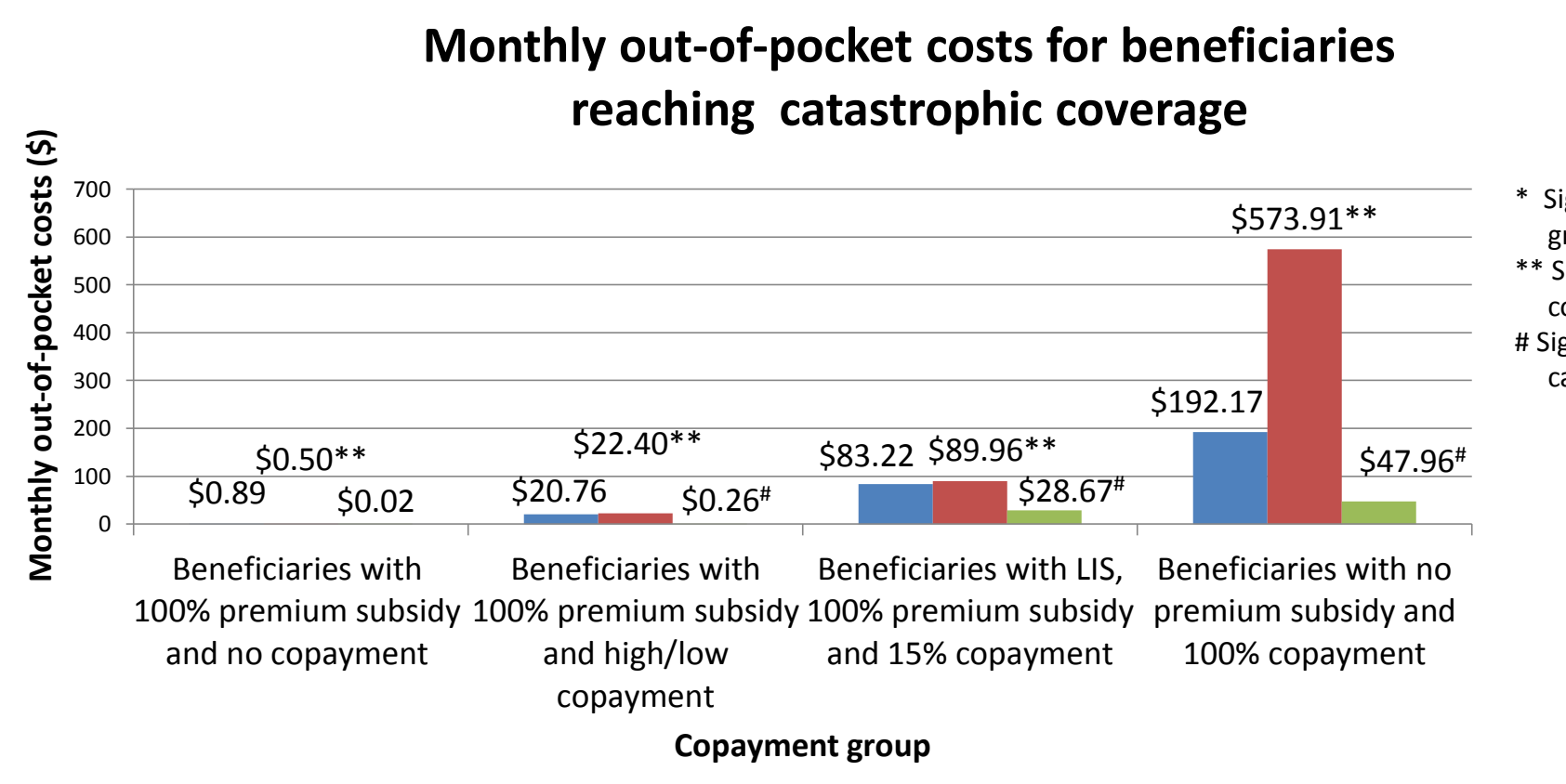


Discontinuation of medications was directly related to increases in OoP costs. Beneficiaries with some, but not full, subsidy were more likely to switch medications when reaching the gap.

## RESULTS



The three subsidized co-pay groups had much lower out-of-pocket (OoP) costs before and after entering the gap compared to the full co-pay group. Although monthly OoP costs changed significantly for all but the no-copay group, the change was only meaningful for the full co-pay group. Groups with any co-pay burden had lower PDCs pre-gap than did the no co-pay group. All co-pay groups had reductions in PDC after reaching the gap.



Among beneficiaries with greater medication use who reached catastrophic coverage, pre-gap PDC was significantly lower for all co-pay groups not fully subsidized. Although PDC dropped significantly in the gap for two co-pay groups, the impact of the gap on PDC was less severe for these beneficiaries.

## CONCLUSION

Increased OoP costs after entering the coverage gap was associated with negative changes in medication consumption behaviors (adherence and continuation) among patients on oral anti-diabetic medications. Beneficiaries who entered the coverage gap but not catastrophic coverage were affected to a greater extent. The findings demonstrate the importance of efforts to fill the coverage gap in the Medicare Part D program in order to ensure more appropriate medication use behaviors, especially for beneficiaries with partial/full cost sharing.