THE CONTINUED SUCCESS OF VALUE-BASED INSURANCE DESIGN:
BLUE CROSS AND BLUE SHIELD OF LOUISIANA'S $0 DRUG COPAY PROGRAM

Mingyan Cong, PhD; Brice L. Mohundro, PharmD, BCACP; Mollie Carby, PharmD, MBA; Milam Ford, MPH, MBA, BS Pharm; Miao Liu, MS; Jason Ouyang, MD, MPH; Yuan Zhang, PhD; Heath C. Williams, MBA; Benjamin V. Vicidomina, BS; Stephanie Mills, MD; Somesh C. Nigam, PhD | Blue Cross and Blue Shield of Louisiana, Baton Rouge, LA, USA

BACKGROUND

- Blue Cross and Blue Shield of Louisiana (BCBSLA) implemented the $0 Drug Copay (ZDC) Program in 2014. Since then, ZDC has become BCBSLA's flagship program to address social determinants of health and health disparities.
- ZDC was designed to reduce financial barriers by offering $0 copays for select drugs commonly prescribed to treat cardiovascular, diabetes, cholesterol, depression and respiratory conditions.
- BCBSLA has steadily grown the program to encourage and support more members, expanding from 2,000 members in its infancy to 74,000 members. Its clinical and financial benefits have continued eight years in a row.
- In July 2020, the ZDC program was expanded as a pharmacy benefit. The purpose of this study was to investigate the benefits of the expanded ZDC program.

METHODS

- The study period was two years, with participants having at least 10 months of continuous enrollment pre- and post-July 2020.
- BCBSLA matched program participants to non-ZDC members with propensity scores for baseline demographics (age, sex, region), certain medical conditions (mental health conditions, cancer, pregnancy, etc.), baseline health care utilization and expenditures, and whether members were attributed to a provider in the Quality Blue program.
- BCBSLA assessed differences across key outcomes of interest.

RESULTS

- Total savings were estimated to be $18 PMPM (per member, per month) for members within the ZDC Program.
- ZDC members had more increases in pharmacy costs but fewer increases in medical costs. The medical savings mainly came from avoiding facility inpatient costs.
- Statistically significant improvements in the number of emergency department (ED) visits and acute admissions were observed among ZDC members.
- The ZDC group had a better medication adherence rate for most drug classes and conditions of interest, with medication adherence improving more among minority and low-income members.
- Regarding HbA1c and blood pressure, the ZDC group had 2.1% and 9.6% more members under control in the post-period, respectively.

Figure 1. Attrition Diagram

Inclusion Criteria

- No ZDC participation at baseline
- Copay products
- BCBSLA primary with a carved-in pharmacy benefit
- Took ZDC drugs in pre- and post-periods

ZDC 3.0 New Participants

Treatment group
N = 31,121

ZDC 3.0 Non-Participants

Control group
(Never in ZDC program)
N = 7,597

Exclusion Criteria

- ≤9 months medical or drug coverage in either pre- or post-periods
- Medical cost in baseline > $150,000
- Any inpatient visit with COVID as primary diagnosis
- Any rare condition

Treatment group
N = 21,891

Control group
N = 5,279

Table 1. Cost Outcomes

Outcome	Treatment Group, N=21,120			Control Group, N=5,183			DID	Probability of Chi-Square Test
	Baseline	Evaluation	Δ	Baseline	Evaluation	Δ		
Financial, PMPM								
Total Allowed Amt	$479	$586	$107	$488	$613	$125	-$18	0.12
Medical Allowed Amt	$312	$394	$82	$316	$428	$112	-$29	0.01
Facility IP Allowed Amt	$34	$54	$20	$35	$74	$39	-$19	<0.01
Facility OP Other Allowed Amt	$53	$66	$13	$55	$74	$18	-$6	0.05
Facility OP Surgery Allowed Amt	$59	$80	$21	$58	$81	$23	-$2	0.67
Professional Allowed Amt	$166	$195	$29	$168	$199	$32	-$3	0.38
Rx Allowed Amt	$167	$191	$24	$172	$185	$13	$11	0.01
Rx Brand Allowed Amt	$113	$142	$28	$113	$133	$21	$8	0.06
Rx Generic Allowed Amt	$54	$50	-$4	$59	$52	-$8	$4	<0.01
Utilization/1,000*year								
Acute Admission	$27	$34	$7	$28	$43	$15	-$8	0.02
ED Visits	$204	$208	$3	$201	$233	$31	-$28	<0.01
Office PCP Visits	$2,148	$2,293	$145	$2,223	$2,364	$141	$3	0.91
Office Specialty Visits	$5,789	$6,176	$386	$5,938	$6,307	$369	$18	0.88

Table 2. Medication Adherence

Drug Class	Treatment Group			Control Group			DID
	Pre	Post	Δ	Pre	Post	Δ	
Antiasthmatic and Bronchodilator Agents	48.0%	53.7%	5.7%	53.0%	51.1%	-2.0%	7.7%
Antidepressants	73.4%	72.8%	-0.6%	72.4%	70.0%	-2.5%	1.8%
Antidiabetics	69.1%	68.4%	-0.7%	68.7%	65.3%	-3.4%	2.7%
Antihyperlipidemics	31.3%	37.5%	6.3%	50.0%	50.0%	0.0%	6.3%
Antihypertensives	79.2%	81.3%	2.1%	79.8%	80.4%	0.6%	1.5%
Beta Blockers	76.6%	77.1%	0.5%	75.7%	76.0%	0.2%	0.3%
Calcium Channel Blockers	80.8%	80.2%	-0.6%	81.5%	80.0%	-1.5%	1.0%
Diuretics	69.8%	71.1%	1.3%	70.0%	69.9%	-0.1%	1.4%

Table 3. Scripts Per 1,000 Per Year

	Adjusted Total Scripts PKPY		Adjusted ZDC Scripts PKPY	
	Control	ZDC	Control	ZDC
Baseline	34,632	33,204	16,164	15,132
Evaluation	37,236	36,060	17,244	16,464
Δ	2,604 (7.5%)	2,856 (8.6%)	1,080 (6.7%)	1,332 (8.8%)
DID	252		252	

Figure 2. Clinical Outcomes

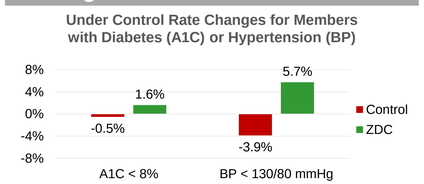


Figure 3. Medication Adherence Rate Change by Income

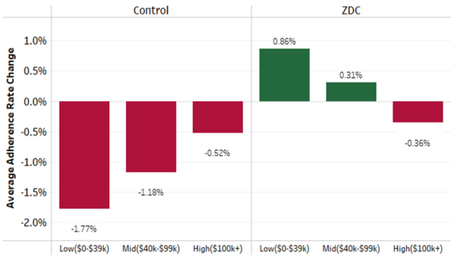
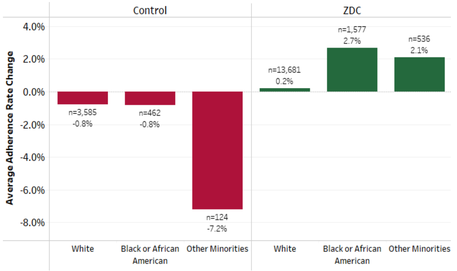


Figure 4. Medication Adherence Rate Change by Race



CONCLUSIONS

- ZDC participants showed financial savings, as well as significant improvements in emergency department visits and acute admissions (Table 1).
- The incentive program reduces financial barriers for members, especially for low-income populations, and particularly benefits minorities (Figure 3 and Figure 4).
- The program has improved adherence in most drug classes, along with clinical improvement in patients with hypertension and diabetes (Table 2 and Figure 2).
- Findings suggest ZDC as a pharmacy benefit continues to enhance patients' access to medication and improve health conditions.

Louisiana