

Impact of Medicare’s Bundled Payments Initiative on Patient Selection, Payments, and Outcomes for PCI and CABG

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Supplemental Table 1: Enrollment and Follow-Up

	Start Date	N PCI hospitals	N CABG hospitals
All	1/1/2014	26	48
	10/1/2014	0	5
	1/1/2015	1	4
	4/1/2015	28	16
	7/1/2015	43	46
	10/1/2015	51	23
	Mean follow-up in sample:	14.7	18.4
BPCI	1/1/2014	8	16
	10/1/2014	0	2
	1/1/2015	1	2
	4/1/2015	13	6
	7/1/2015	15	16
	10/1/2015	16	10
	Mean follow-up in sample:	14.7	17.9
Non-BPCI	1/1/2014	18	32
	10/1/2014	0	3
	1/1/2015	0	2
	4/1/2015	15	10
	7/1/2015	28	30
	10/1/2015	35	13
	Mean follow-up in sample:	14.8	18.7

Supplemental Table 2. Comparison of pre-trends for Medicare payments for BPCI versus Control Hospitals

		BPCI		CONTROL		Difference	
		Beta	P	Beta	P	Beta	P value
PCI	Total payment	-\$558	0.001	-\$207	0.432	-\$351	0.257
	Index hospitalization	\$9	0.685	\$7	0.836	\$2	0.970
	Readmission	-\$207	0.023	\$19	0.891	-\$226	0.175
	SNF	-\$207	0.001	-\$163	0.068	-\$44	0.684
	IRF	\$14	0.703	\$17	0.734	-\$3	0.958
	HHA	-\$91	0.000	-\$86	0.007	-\$5	0.892
	DME	-\$10	0.871	-\$262	0.193	\$252	0.232
CABG	Total payment	-\$5	0.985	\$551	0.192	-\$556	0.262
	Index hospitalization	\$11	0.922	\$144	0.481	-\$133	0.569
	Readmission	\$295	0.037	\$651	0.009	-\$357	0.213
	SNF	-\$159	0.009	-\$94	0.367	-\$65	0.594
	IRF	-\$2	0.967	\$145	0.080	-\$146	0.109
	HHA	-\$92	0.000	-\$124	0.000	\$32	0.385
	DME	-\$63	0.018	-\$87	0.051	\$24	0.636

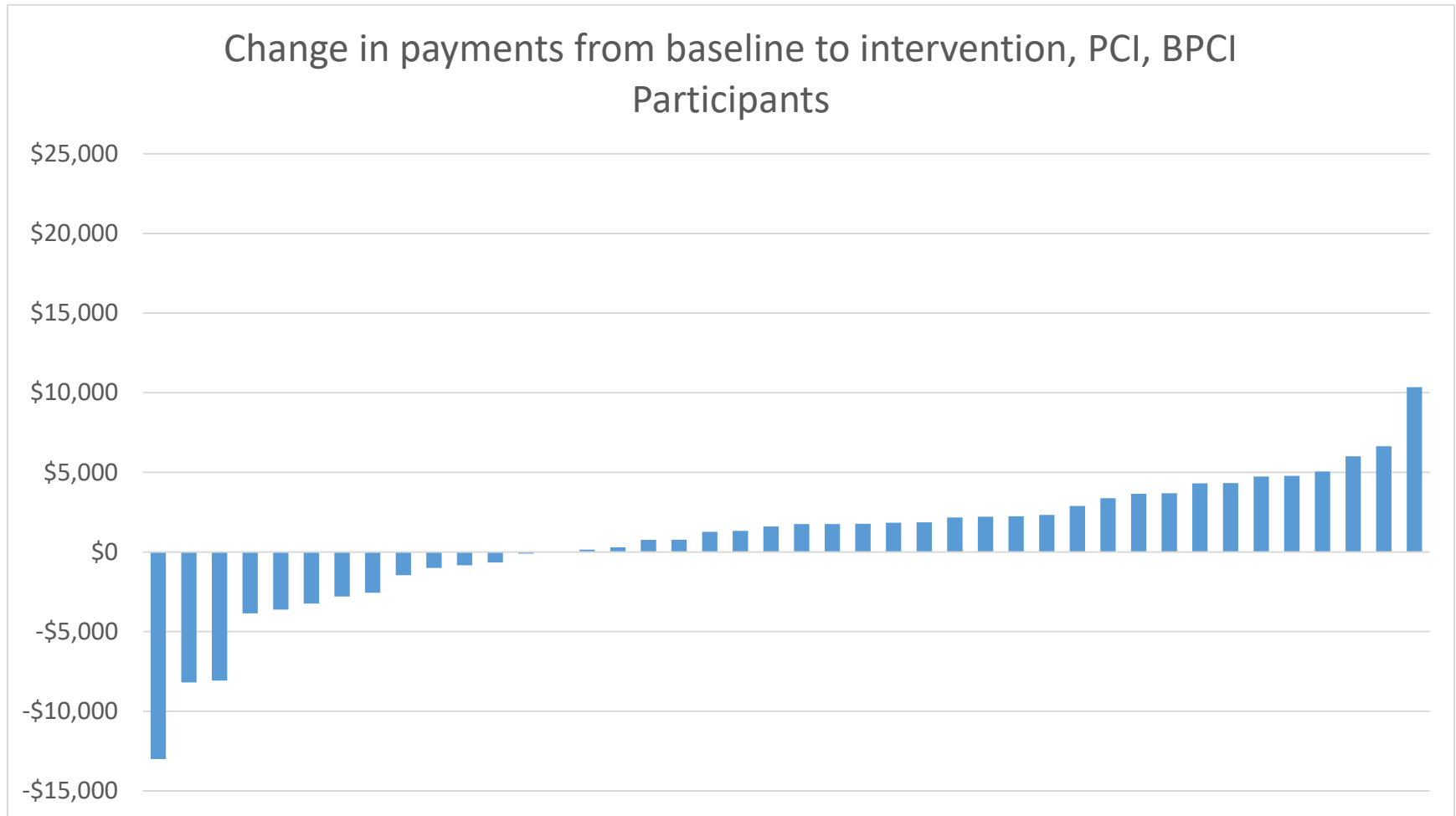
CABG – Coronary Artery Bypass Grafting; DME – Durable medical equipment; HHA – home health agency; IRF – Inpatient rehabilitation facility; PCI – Percutaneous coronary intervention; SNF – Skilled nursing facility

Supplemental Table 3. Comparison of pre-trends for Clinical Outcomes for BPCI versus Control Hospitals

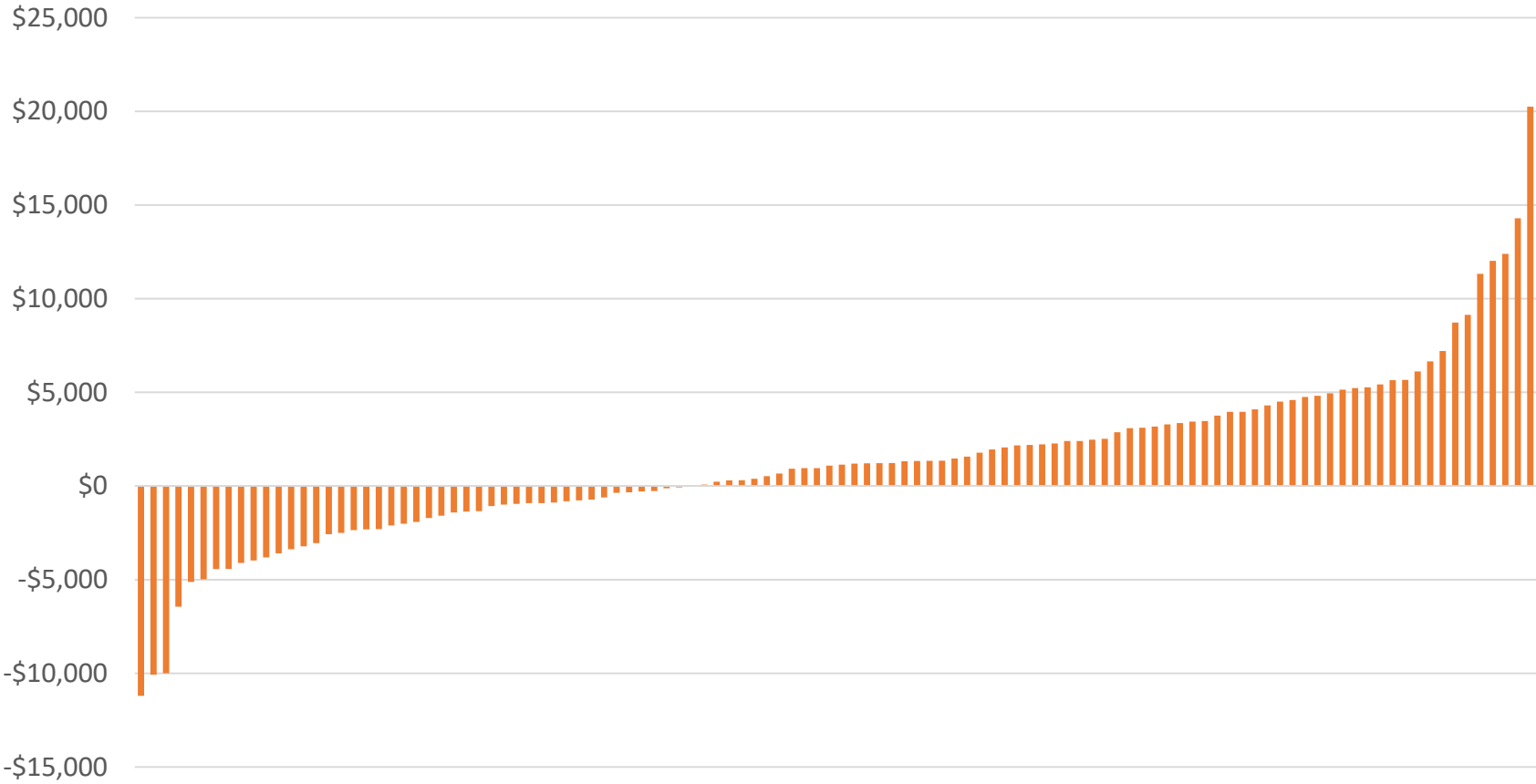
		BPCI		CONTROL		Difference	
		Beta	P	Beta	P	Beta	P value
PCI	Length of stay	-2.8%	0.406	-6.1%	0.063	3.3%	0.476
	30d ED	-1.1%	0.134	-0.4%	0.670	-0.7%	0.540
	90d ED	-0.2%	0.784	-0.7%	0.369	0.5%	0.622
	30d Readmission	-0.1%	0.729	0.3%	0.248	-0.4%	0.280
	90d Readmission	-0.2%	0.480	0.5%	0.086	-0.7%	0.080
	30d Mortality	-0.1%	0.355	0.0%	0.927	-0.1%	0.661
	90d Mortality	-0.4%	0.011	0.0%	0.929	-0.4%	0.128
CABG	Length of stay	-0.4%	0.963	-0.2%	0.977	-0.1%	0.992
	30d ED	0.1%	0.928	0.7%	0.562	-0.6%	0.726
	90d ED	0.2%	0.821	1.4%	0.173	-1.2%	0.384
	30d Readmission	-0.1%	0.712	-0.2%	0.682	0.0%	0.943
	90d Readmission	0.2%	0.501	-0.1%	0.733	0.4%	0.493
	30d Mortality	0.05%	0.721	-0.1%	0.432	0.2%	0.410
	90d Mortality	-0.01%	0.968	-0.1%	0.665	0.1%	0.782

CABG – Coronary Artery Bypass Grafting; ED – emergency department; PCI – Percutaneous coronary intervention; SNF – Skilled nursing facility

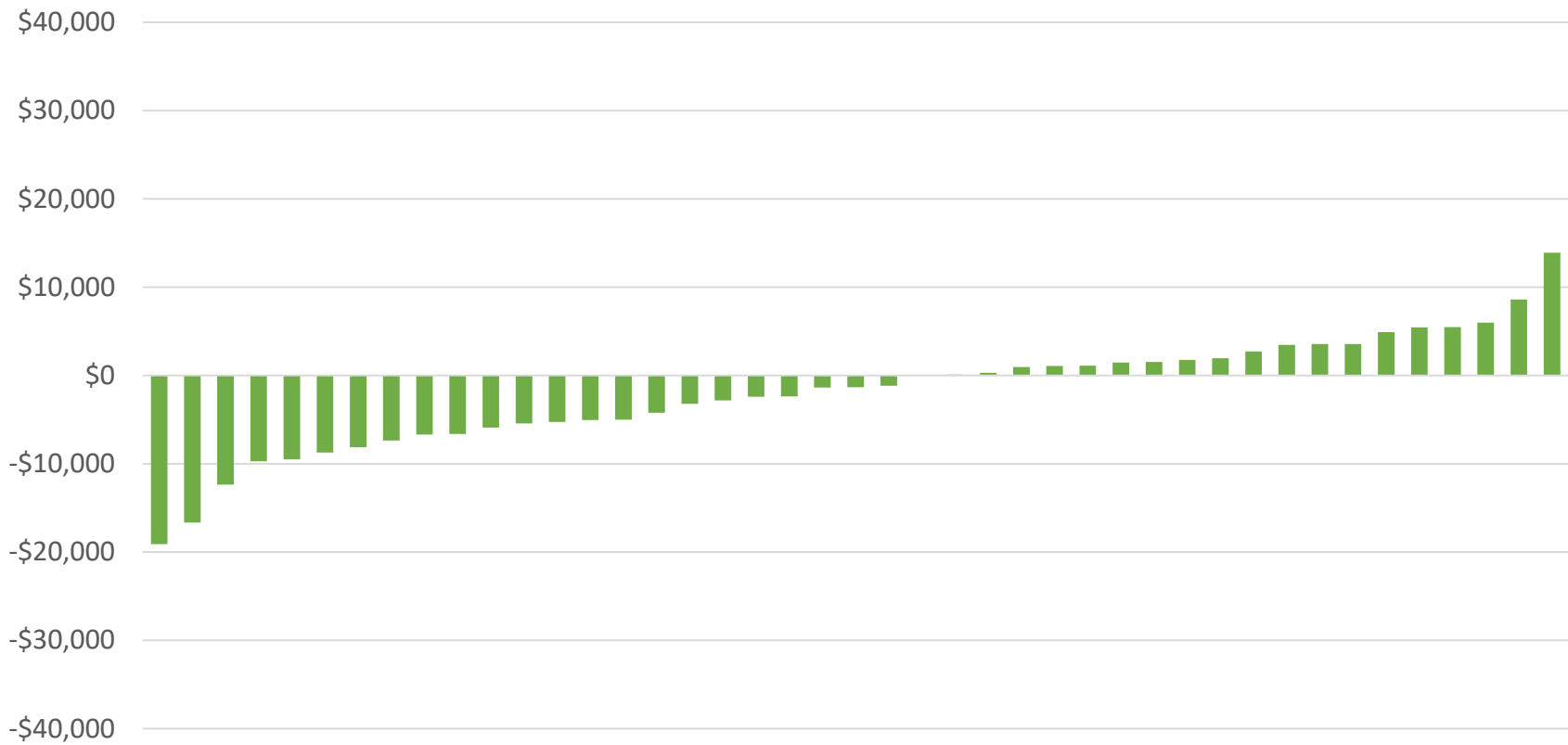
Supplemental Figure 1: Distribution of changes in payments, by condition and group



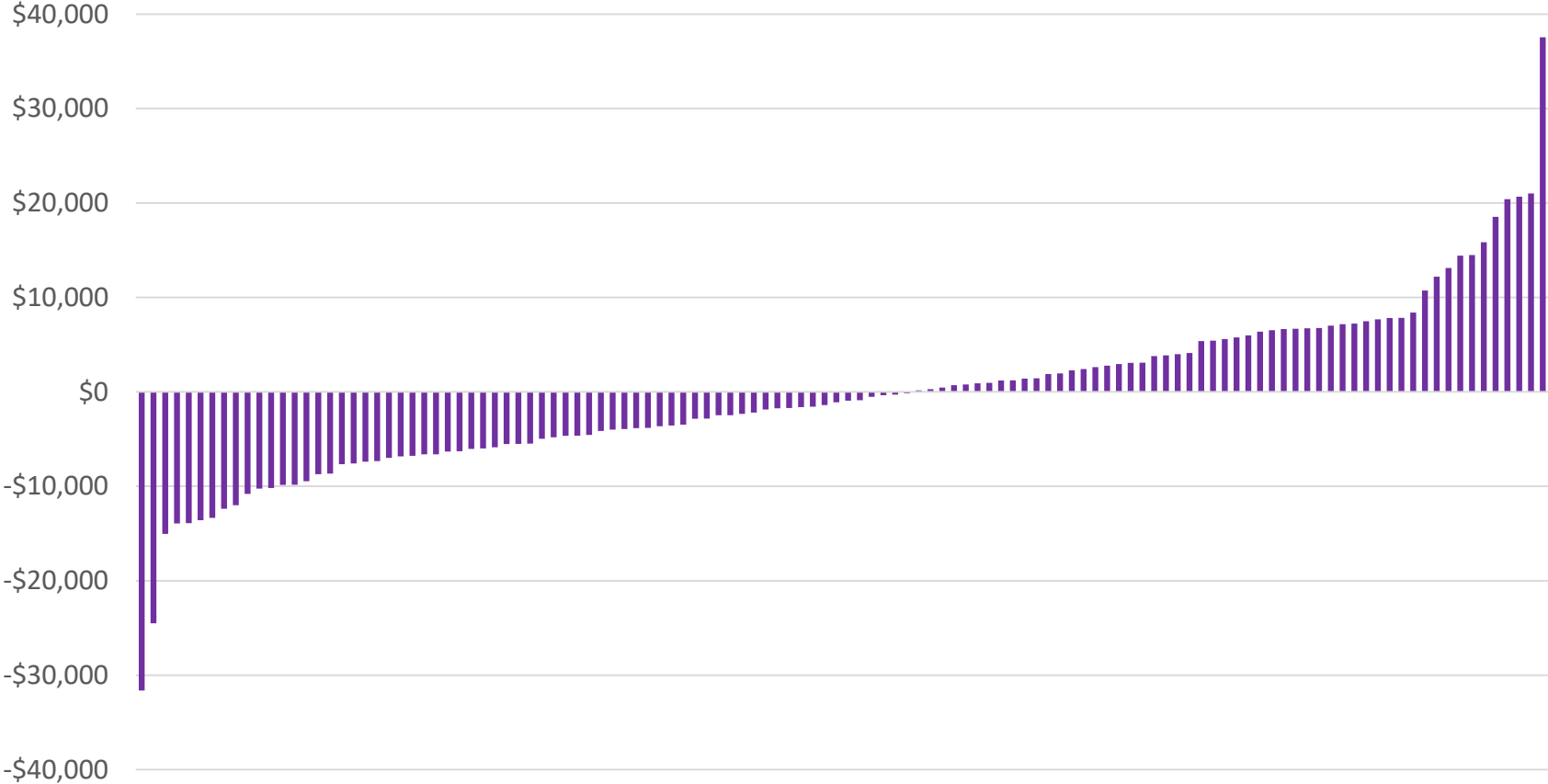
Change in payments from baseline to intervention, PCI, Controls



Change in payments from baseline to intervention, CABG, BPCI Participants



Change in payments from baseline to intervention, CABG, Controls



Supplemental Table 4. Outlier vs. non-outlier cases

<i>PCI</i>	BPCI		CONTROL	
	Baseline	Intervention	Baseline	Intervention
Outlier Cases				
% of cases with outlier payment	3.9%	3.5%	3.8%	4.4%
Mean outlier payment	\$7,989	\$9,212	\$8,044	\$7,807
Mean index payment	\$23,906	\$26,423	\$26,920	\$24,787
Non-Outlier Cases				
% of cases with outlier payment	0.0%	0.0%	0.0%	0.0%
Mean outlier payment	\$0	\$0	\$0	\$0
Mean index payment	\$13,390	\$13,831	\$13,622	\$13,760
<i>CABG</i>	BPCI		CONTROL	
	Baseline	Intervention	Baseline	Intervention
Outlier Cases				
% of cases with outlier payment	7.8%	8.7%	9.5%	10.2%
Mean outlier payment	\$13,288	\$10,821	\$9,839	\$9,723
Mean index payment	\$45,138	\$40,892	\$44,154	\$40,409
Non-Outlier Cases				
% of cases with outlier payment	0.0%	0.0%	0.0%	0.0%
Mean outlier payment	\$0	\$0	\$0	\$0
Mean index payment	\$24,885	\$23,884	\$25,542	\$25,098

P for difference in differences of proportion of stays with outlier payments between BPCI and matched controls = 0.299 for PCI and 0.864 for CABG.