

Appendix 2: Hospital COST Savings - Violent Crime

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables			Total improvement of SDOH directly tied to this CM	Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level
	Comorbidity Coefficient	Total # of people with CM (full Dataset)	Pvalue P> t	Violent Crime Standard Deviation	IVProbit - Crime Coefficient	Pvalue P> t			
	a	b	95% C.I.	c	d	95% C.I.	e = c*d	f = e*b	g = a*f
CM_ALCOHOL	188.25	296,810	0.000	79.01795	-0.0008	0.000	-0.0608	-18059.0547	\$ (3,399,576)
CM_CHF	127.07	530,955	0.000	79.01795	-0.0001	0.000	-0.0114	-6058.2985	\$ (769,810)
CM_CHRNLUNG	364.48	1,157,963	0.000	79.01795	-0.0006	0.000	-0.0436	-50453.0241	\$ (18,389,295)
CM_COAG	5385.73	315,507	0.000	79.01795	0.0001	0.000	0.0051	1618.0035	\$ 8,714,133 **
CM_DEPRESS	-449.84	682,034	0.000	79.01795	-0.0003	0.000	-0.0220	-15003.7913	\$ 6,749,338
CM_DM	103.94	1,124,619	0.000	79.01795	0.00035	0.000	0.0277	31120.5538	\$ 3,234,767 **
CM_DMCX	-654.92	303,608	0.000	79.01795	-0.0005	0.000	-0.0386	-11712.1532	\$ 7,670,525
CM_DRUG	203.86	312,860	0.000	79.01795	-0.0012	0.000	-0.0925	-28931.6368	\$ (5,898,137)
CM_HTN_C	-46.37	2,971,850	0.000	79.01795	0.0002	0.000	0.0181	53682.0225	\$ (2,489,221)
CM_HYPOTHY	-219.58	708,802	0.000	79.01795	-0.0001	0.000	-0.0076	-5371.1750	\$ 1,179,386
CM_LIVER	496.63	200,113	0.000	79.01795	-0.0002	0.000	-0.0174	-3477.1729	\$ (1,726,875)
CM_LYMPH	923.55	48,207	0.000	79.01795	-0.0004	0.000	-0.0292	-1405.6016	\$ (1,298,138)
CM_LYTES	2216.55	1,529,326	0.000	79.01795	0.0005	0.000	0.0432	66005.1050	\$ 146,303,681 **
CM_METS	-347.71	131,645	0.000	79.01795	-0.0005	0.000	-0.0358	-4715.3708	\$ 1,639,604
CM_NEURO	428.35	473,779	0.000	79.01795	-0.0001	0.000	-0.0070	-3305.6911	\$ (1,416,007)
CM_OBESE	466.71	801,196	0.000	79.01795	-0.0004	0.000	-0.0296	-23702.8392	\$ (11,062,331)
CM_PARA	207.29	157,815	0.000	79.01795	-0.0005	0.000	-0.0392	-6193.9572	\$ (1,283,974)
CM_PERIVASC	98.37	361,433	0.000	79.01795	-0.0004	0.000	-0.0292	-10564.2311	\$ (1,039,153)
CM_PSYCH	-665.95	302,150	0.000	79.01795	-0.0007	0.000	-0.0537	-16223.2484	\$ 10,803,947
CM_PULMCIRC	2236.82	141,000	0.000	79.01795	-0.0004	0.000	-0.0318	-4485.5804	\$ (10,033,454)
CM_RENLFAIL	426.56	756,841	0.000	79.01795	-0.0004	0.000	-0.0344	-26008.7702	\$ (11,094,304)
CM_TUMOR	-313.95	123,996	0.000	79.01795	-0.0001	0.000	-0.0114	-1417.7575	\$ 445,104
CM_ULCER	916.04	1,832	0.006	79.01795	-0.0003	0.016	-0.0244	-44.6298	\$ (40,883)
CM_WGHTLOSS	1677.10	306,704	0.000	79.01795	0.0001	0.000	0.0053	1618.9061	\$ 2,715,071 **
<b>Total COST Savings</b>								<b>\$ 119,514,400</b>	

Cost Saving	Total	Directly Impacted**
Full Range	\$ 119,514,400	\$ 160,967,652
Percent of Total Cost	0.16%	0.21%

- Notes:**
- Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*\*\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.
  - The first regression had 6,917,385 total observations. The second regression had 6,504,098 observations
  - Total cost for full dataset used to calculate percent of total cost: \$75,469,829,306.87

### Appendix 3: Hospital COST Savings - Supplemental Nutrition Assistance Program (SNAP) Distribution

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables			Total improvement of SDOH directly tied to this CM	Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level	
	Comorbidity Coefficient	Total # of people with CM (full Dataset)	Pvalue P> t	SNAP Standard Deviation	IVProbit - SNAP Coefficient	Pvalue P> t				
	a	b	95% C.I.	c	d	95% C.I.	e = c*d	f = e*b	g = a*f	
CM_ALCOHOL	188.25	296,810	0.000	-24.9066	0.0074726	0.000	-0.186	-55241.36	g = a*f	**
CM_CHF	127.07	530,955	0.000	-24.9066	0.0012921	0.000	-0.032	-17087.08	\$ (2,171,206)	**
CM_CHRNLUNG	364.48	1,157,963	0.000	-24.9066	0.0052153	0.000	-0.130	-150413.94	\$ (54,823,398)	**
CM_COAG	5,385.73	315,507	0.000	-24.9066	-0.000654	0.000	0.016	5139.26	\$ 27,678,693	
CM_DEPRESS	-449.8422	682,034	0.000	-24.9066	0.0022793	0.000	-0.057	-38718.78	\$ 17,417,339	
CM_DM	103.94	1,124,619	0.000	-24.9066	-0.0035162	0.000	0.088	98490.21	\$ 10,237,378	
CM_DMCX	-654.9201	303,608	0.000	-24.9066	0.0045939	0.000	-0.114	-34738.32	\$ 22,750,826	
CM_DRUG	203.86	312,860	0.000	-24.9066	0.0112634	0.000	-0.281	-87767.48	\$ (17,892,683)	**
CM_HTN_C	-46.36973	2,971,850	0.000	-24.9066	-0.0022445	0.000	0.056	166134.79	\$ (7,703,625)	
CM_HYPOTHY	-219.577	708,802	0.000	-24.9066	0.000918	0.000	-0.023	-16206.22	\$ 3,558,513	
CM_LIVER	496.63	200,113	0.000	-24.9066	0.0019953	0.000	-0.050	-9944.84	\$ (4,938,924)	**
CM_LYMPH	923.55	48,207	0.000	-24.9066	0.0035835	0.000	-0.089	-4302.61	\$ (3,973,656)	**
CM_LYTES	2,216.55	1,529,326	0.000	-24.9066	-0.0053348	0.000	0.133	203204.03	\$ 450,412,091	
CM_METS	-347.7147	131,645	0.000	-24.9066	0.0044255	0.000	-0.110	-14510.45	\$ 5,045,496	
CM_NEURO	428.35	473,779	0.000	-24.9066	0.0008338	0.000	-0.021	-9839.02	\$ (4,214,587)	**
CM_OBESE	466.71	801,196	0.000	-24.9066	0.003682	0.000	-0.092	-73474.50	\$ (34,291,219)	**
CM_PARA	207.29	157,815	0.000	-24.9066	0.0048061	0.000	-0.120	-18891.01	\$ (3,916,004)	**
CM_PERIVASC	98.37	361,433	0.000	-24.9066	0.0036385	0.000	-0.091	-32754.00	\$ (3,221,853)	**
CM_PSYCH	-665.9546	302,150	0.000	-24.9066	0.0065859	0.000	-0.164	-49562.34	\$ 33,006,270	
CM_PULMCIRC	2,236.82	141,000	0.000	-24.9066	0.0037754	0.000	-0.094	-13258.55	\$ (29,657,053)	**
CM_RENLFAIL	426.56	756,841	0.000	-24.9066	0.004268	0.000	-0.1063	-80453.17	\$ (34,318,112)	**
CM_TUMOR	-313.9491	123,996	0.000	-24.9066	0.0014231	0.000	-0.0354	-4394.98	\$ 1,379,801	
CM_ULCER	916.04	1,832	0.006	-24.9066	0.0020731	0.019	-0.0516	-94.59	\$ (86,651)	** , 2
CM_WGHTLOSS	1,677.10	306,704	0.000	-24.9066	-0.0006417	0.000	0.0160	4901.91	\$ 8,221,008	
<b>Total COST Savings</b>								<b>378,498,444</b>		

Cost Saving	Total	Directly Impacted**
Full Range	\$ 378,498,444	\$ (193,505,346)
Percent of Total Cost	0.5%	-0.3%

**Notes:**

- Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.
- Peptic Ulcer Disease IVProbit coefficient was 0.0029344, but the Wald Test of Exogeneity determined IV regression was not necessary; Ran probit regression instead and the coefficient included is from that regression.
- The first regression had 6,917,385 total observations. The second regression had 6,504,098 observations
- Total cost for full dataset used to calculate percent of total cost: \$75,469,829,306.87

Appendix 4: Hospital COST Savings - Unemployment

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables				Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level
	Comorbidity Coefficient	Total # of people with CM (full Dataset)	Pvalue P> t	Unemployment Standard Deviation	IVProbit - Unemployment Coefficient	Pvalue P> t	Total improvement of SDOH directly tied to this CM		
	a	b	95% C.I.	c	d	95% C.I.	e = c*d		
CM_ALCOHOL	188.25	296810	0.000	0.00823	-55.85073	0.000	-0.45953	-136394.35	g = a*f
CM_CHF	127.07	530955	0.000	0.00823	-10.30066	0.000	-0.08475	-44999.92	\$ (5,718,010)
CM_CHRNLUNG	364.48	1157963	0.000	0.00823	-41.11163	0.000	-0.33826	-391695.32	\$ (142,766,481)
CM_COAG	5385.73	315507	0.000	0.00823	4.85251	0.000	0.03993	12596.93	\$ 67,843,702 **
CM_DEPRESS	-449.84	682034	0.000	0.00823	-20.44660	0.000	-0.16823	-114740.34	\$ 51,615,047
CM_DM	103.94	1124619	0.000	0.00823	26.44810	0.000	0.21761	244730.95	\$ 25,438,094 **
CM_DMCX	-654.92	303608	0.000	0.00823	-38.04751	0.000	-0.31305	-95044.82	\$ 62,246,763
CM_DRUG	203.86	312860	0.000	0.00823	-79.15033	0.000	-0.65124	-203747.26	\$ (41,536,854)
CM_HTN_C	-46.37	2971850	0.000	0.00823	17.40703	0.000	0.14322	425638.17	\$ (19,736,727)
CM_HYPOTHY	-219.58	708802	0.000	0.00823	-7.72199	0.000	-0.06354	-45034.26	\$ 9,888,487
CM_LIVER	496.63	200113	0.000	0.00823	-17.15406	0.000	-0.14114	-28244.33	\$ (14,027,037)
CM_LYMPH	923.55	48207	0.000	0.00823	-28.10268	0.000	-0.23123	-11146.71	\$ (10,294,505)
CM_LYTES	2216.55	1529326	0.000	0.00823	40.79230	0.000	0.33563	513295.28	\$ 1,137,745,163 **
CM_METS	-347.71	131645	0.000	0.00823	-34.38487	0.000	-0.28292	-37244.38	\$ 12,950,419
CM_NEURO	428.35	473779	0.000	0.00823	-6.92427	0.000	-0.05697	-26992.25	\$ (11,562,248)
CM_OBESE	466.71	801196	0.000	0.00823	-28.60311	0.000	-0.23534	-188556.29	\$ (88,000,938)
CM_PARA	207.29	157815	0.000	0.00823	-37.33105	0.000	-0.30716	-48473.85	\$ (10,048,367)
CM_PERIVASC	98.37	361433	0.000	0.00823	-28.76878	0.000	-0.23671	-85553.59	\$ (8,415,496)
CM_PSYCH	-665.95	302150	0.000	0.00823	-49.68788	0.000	-0.40883	-123527.05	\$ 82,263,407
CM_PULMCIRC	2236.82	141000	0.000	0.00823	-30.50413	0.000	-0.25098	-35388.88	\$ (79,158,686)
CM_RENLFAIL	426.56	756841	0.000	0.00823	-32.88908	0.000	-0.27061	-204807.28	\$ (87,362,612)
CM_TUMOR	-313.95	123996	0.000	0.00823	-11.19553	0.000	-0.09212	-11421.98	\$ 3,585,920
CM_ULCER	916.04	1832	0.006	0.00823	-23.67414	0.014	-0.19479	-356.85	\$ (326,891)
CM_WGHTLOSS	1677.10	306704	0.000	0.00823	5.11401	0.000	0.04208	12905.36	\$ 21,643,600 **
<b>Total COST Savings</b>								<b>\$ 956,265,751</b>	

Cost Saving	Total	Directly Impacted**
<b>Full Range</b>	<b>\$ 956,265,751</b>	<b>\$ 1,252,670,559</b>
<b>Percent of Total Cost</b>	1.3%	1.7%

- Notes:**
- Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.
  - The first regression had 6,917,385 total observations. The second regression had 6,504,098 observations
  - Total cost for full dataset used to calculate percent of total cost: \$75,469,829,306.87

## Appendix 5: DRG 470 - Hospital COST Savings - Violent Crime

Subset of Data Observations:

209,368

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables			Total improvement directly tied to this CM	Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level
	Comorbidity Coefficient	Total # of people with CM (Subset)	Pvalue P> t	Violent Crime Standard Deviation	IVProbit - Crime Coefficient	Pvalue P> t			
	a	b	95% C.I.	c	d	95% C.I.	e = c*d	f = e*b	g = a*f
CM_ALCOHOL	341.95	2,988.00	0.004	79.01795	-0.0008108	0.000	-0.064067754	(191)	(65,462)
CM_CHF	540.72	5,962.00	0.000	79.01795	0.0003753	0.003	0.029655437	177	95,602
CM_CHRNLUNG	297.33	32,630.00	0.000	79.01795	-0.00038	0.000	-0.030026821	(980)	(291,321)
CM_DM	141.83	37,323.00	0.000	79.01795	0.0007591	0.000	0.059982526	2,239	317,513
CM_DMCX	600.80	3,952.00	0.000	79.01795	-0.0011146	0.000	-0.088073407	(348)	(209,120)
CM_DRUG	1071.25	1,696.00	0.000	79.01795	-0.0017481	0.000	-0.138131278	(234)	(250,963)
CM_HTN_C	-334.45	139,636.00	0.000	79.01795	0.007398	0.000	0.584574794	81,628	(27,300,673)
CM_LIVER	819.57	2,373.00	0.000	79.01795	-0.0003922	0.027	-0.03099084	(74)	(60,272)
CM_LYMPH	923.81	672.00	0.000	79.01795	-0.0005941	0.034	-0.046944564	(32)	(29,143)
CM_LYTES	494.47	19,412.00	0.000	79.01795	0.0008215	0.000	0.064913246	1,260	623,081
CM_OBESE	246.69	46,590.00	0.000	79.01795	-0.0011758	0.000	-0.092909306	(4,329)	(1,067,822)
CM_PSYCH	354.97	5,543.00	0.000	79.01795	-0.0008435	0.000	-0.066651641	(369)	(131,144)
CM_PULMCIRC	798.48	2,042.00	0.000	79.01795	-0.0009016	0.000	-0.071242584	(145)	(116,160)
CM_WGHTLOSS	547.24	1,050.00	0.007	79.01795	0.0004836	0.047	0.038213081	40	21,958
<b>Total COST Savings</b>								<b>\$</b>	<b>(28,463,926)</b>

Cost Saving	Total	Directly Impacted**
Full Range	\$ (28,463,926)	\$ 1,058,154
Percent of Total Cost	-0.86%	0.03%

**Notes:**

1. Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.

2. Total cost for DRG 470 dataset used to calculate percent of total cost: \$3,304,396,448.41

## Appendix 6: DRG 470 - Hospital COST Savings - Supplemental Nutrition Assistance Program (SNAP) Distribution

Subset of Data Observations:

209,368

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables				Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level
	Comorbidity Coefficient	Total # of people with CM (Subset)	Pvalue P> t	SNAP Standard Deviation	IVProbit - SNAP Coefficient	Pvalue P> t	Total improvement directly tied to this CM		
	a	b	95% C.I.	c	d	95% C.I.	e = c*d	f = e*b	g = a*f
CM_ALCOHOL	341.95	2,298	0.000	-24.90658	0.0078213	0.000	-0.194801834	(448)	(153,076.88)
CM_CHF	540.72	5,962	0.000	-24.90658	-0.0037407	0.003	0.093168044	555	300,352.59
CM_CHRNLUNG	297.33	32,630	0.000	-24.90658	0.0036943	0.000	-0.092012378	(3,002)	(892,706.37)
CM_DEPRESS	-19.77	29,556	0.000	-24.90658	-0.0031821	0.000	0.079255228	2,342	(46,300.30)
CM_DM	103.94	37,323	0.000	-24.90658	-0.0075682	0.000	0.188497979	7,035	731,271.94
CM_DMCX	600.80	3,952	0.000	-24.90658	0.009647	0.000	-0.240273777	(950)	(570,501.01)
CM_DRUG	1071.25	1,696	0.000	-24.90658	0.0161122	0.000	-0.401299798	(681)	(729,098.89)
CM_HTN_C	-334.45	139,636	0.000	-24.90658	-0.0071827	0.000	0.178896492	24,980	(8,354,781.56)
CM_LYMPH	923.81	672	0.000	-24.90658	0.0056679	0.037	-0.141168005	(95)	(87,637.05)
CM_LYTES	494.47	19,412	0.000	-24.90658	-0.0082457	0.000	0.205372187	3,987	1,971,301.66
CM_NEURO	77.43	10,741	0.000	-24.90658	-0.0025041	0.010	0.062368567	670	51,872.98
CM_OBESE	246.69	46,590	0.000	-24.90658	0.0114134	0.000	-0.28426876	(13,244)	(3,267,148.04)
CM_PERIVASC	137.28	5,432	0.000	-24.90658	0.0071452	0.000	-0.177962495	(967)	(132,711.38)
CM_PSYCH	354.97	5,543	0.000	-24.90658	0.0074765	0.000	-0.186214045	(1,032)	(366,396.06)
CM_PULMCIRC	798.48	2,042	0.000	-24.90658	0.0081976	0.000	-0.20417418	(417)	(332,903.42)
CM_RENLFAIL	61.64	11,422	0.000	-24.90658	0.0047001	0.000	-0.117063417	(1,337)	(82,413.30)
CM_WGHTLOSS	547.24	1,050	0.000	-24.90658	-0.0052081	0.028	0.129715959	136	74,535.72
<b>Total COST Savings</b>									<b>(11,886,339)</b>

Cost Saving	Total	Directly Impacted**
Full Range	\$ (11,886,339)	\$ (5,677,695)
Percent of Total Cost	-0.36%	-0.17%

**Notes:**

- Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*\*\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.
- Peptic Ulcer Disease IVProbit coefficient was 0.0029344, but the Wald Test of Exogeneity determined IV regression was not necessary; Ran probit regression instead and the coefficient included is from that regression.
- Total cost for DRG 470 dataset used to calculate percent of total cost: \$3,304,396,448.41

**Appendix 7: DRG 470 - Hospital COST Savings - Unemployment**

Subset of Data Observations: 209,368

Comorbidity	1st Stage Cost Regression			2nd Stage Regression - Instrumental Variables				Total # of People with CM associated with Potential Savings	High Level Savings at Comorbidity Level
	Comorbidity Coefficient	Total # of people with CM (Subset)	Pvalue P> t	Unemployment Standard Deviation	IVProbit - Unemployment Coefficient	Pvalue P> t	Total improvement directly tied to this CM		
	a	b	95% C.I.	c	d	95% C.I.	e = c*d	f = e*b	g = a*f
CM_ALCOHOL	341.95	2298	0.000	0.0082279	-56.69183	0.000	-0.466454708	-1071.912919	(366,543.95)
CM_CHF	540.72	5962	0.000	0.0082279	28.38896	0.002	0.233581524	1392.613046	753,013.73 **
CM_CHRNLUNG	297.33	32630	0.000	0.0082279	-28.39678	0.000	-0.233645866	-7623.864613	(2,266,837.97)
CM_DEPRESS	-19.77	29556	0.000	0.0082279	22.74667	0.000	0.187157326	5531.62193	(109,335.88)
CM_DM	103.94	37323	0.000	0.0082279	53.36028	0.000	0.439043048	16386.40367	1,703,253.60 **
CM_DMCX	600.80	3952	0.000	0.0082279	-74.38255	0.000	-0.612012183	-2418.672148	(1,453,148.87)
CM_DRUG	1071.25	1696	0.000	0.0082279	-101.5575	0.000	-0.835604954	-1417.186002	(1,518,163.34)
CM_HTN_C	-334.45	139636	0.000	0.0082279	52.50805	0.000	0.432030985	60327.07856	(20,176,608.60)
CM_LIVER	819.57	2373	0.000	0.0082279	-30.98249	0.013	-0.254920829	-604.9271283	(495,778.19)
CM_LYMPH	923.81	672	0.000	0.0082279	-42.47746	0.024	-0.349500293	-234.864197	(216,969.66)
CM_LYTES	494.47	19412	0.000	0.0082279	57.24028	0.000	0.4709673	9142.417224	4,520,663.84 **
CM_NEURO	77.43	10741	0.000	0.0082279	18.97154	0.010	0.156095934	1676.626427	129,827.61 **
CM_OBESE	246.69	46590	0.000	0.0082279	-77.03207	0.000	-0.633812169	-29529.30894	(7,284,508.45)
CM_PERIVASC	137.28	5432	0.000	0.0082279	-61.37959	0.000	-0.505025129	-2743.296498	(376,610.72)
CM_PSYCH	354.97	5543	0.000	0.0082279	-58.79928	0.000	-0.483794596	-2681.673445	(951,917.65)
CM_PULMCIRC	798.48	2042	0.000	0.0082279	-62.01577	0.000	-0.510259554	-1041.950009	(831,971.76)
CM_RENLFAIL	61.64	11422	0.000	0.0082279	-35.75649	0.000	-0.294200824	-3360.361813	(207,119.03)
CM_WGHTLOSS	547.24	1050	0.000	0.00823	5.11401	0.000	0.04208	44.18	\$ 24,178 **
<b>Total COST Savings</b>								<b>\$</b>	<b>(29,124,577)</b>

Cost Saving	Total	Directly Impacted**
<b>Full Range</b>	<b>\$ (29,124,577)</b>	<b>\$ 7,130,937</b>
<b>Percent of Total Cost</b>	<b>-0.88%</b>	<b>0.22%</b>

**Notes:**

1. Each column's information used to calculate the high level savings at the comorbidity level. (a) Comorbidity Coefficient from the Cost Regression representing marginal effect comorbidity has on Cost given all other control variables as noted in the Data Sources and Methods chapter; (b) Number of observations with comorbidity based on "1" identifier for dummy variable; (c) Standard deviation calculated across Hospital Divisions as noted in Appendix; (d) SDOH coefficient for IVPROBIT regression representing the marginal effect of the SDOH on the comorbidity given all other control variables as noted in the Data Sources and Methods chapter; (e) proportion of the SDOH coefficient used to reduce SDOH by 1 standard deviation; (f) proportion of people where the SDOH causes the comorbidity; (h) Represent the amounts that would affect cost based on the observations that has comorbidities that are caused by SDOH. The amounts "\*" represents the directly impacted amounts where both the SDOH coefficient from the IVProbit regression and the comorbidity coefficient from the Cost regression are both positive.

2. Total cost for DRG 470 dataset used to calculate percent of total cost: \$3,304,396,448.41