

# METHODS AND APPENDIX

## *The Unintended Consequence of Requiring Immigrants to Meet “Reasonably Foreseeable” Medical Costs*

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### METHODS

We used Medical Expenditure Panel Survey (MEPS) full-year consolidated file datasets for panels 14 through 19, covering years 2009 to 2015. We merged these data with information on the presence of conditions for each individual from the MEPS condition files from 2009 to 2015, separating the panels within each year of the data. From this final dataset, which matched individuals to conditions, we selected the 15 most common Clinical Classifications Software categories (CCS) as well as all of the CCS categories with at least 55 observations in the sample and total expenditures of more than \$20,000 in Year 1. CCS is a frequently used system of clustering ICD-9 diagnosis codes into clinically meaningful diagnoses.

Next, we calculated second-year spending among those who had each condition in the first year. To do this, we kept all observations with the relevant CCS of interest matched to an individual in the first year of the sample. We then dropped any duplicates that might occur if an individual had been diagnosed with multiple ICD-9 diagnosis codes within the same CCS. The same individual could be included in multiple condition analyses (e.g., a person with both cancer and a hip fracture would have their average second-year costs included in the analysis of both cancer and hip fracture).

We estimated “reasonably foreseeable costs” as the average spending in Year 2 of those in each Year 1 CCS. We then computed the percentage of people in each Year 1 CCS who spent less than that average in Year 2. Finally, we computed the total spending of those who spent more than that average in Year 2. We subtracted the average (the resources put aside to meet reasonably foreseeable costs) for each individual. We aggregated this total across all individuals who had been diagnosed with this condition in Year 1. This is the total of spending that would not be captured by the policy. We then computed the share of aggregated total expenses in Year 2 for that condition accounted for by this remainder.



## Appendix Exhibit 1. Distribution of Spending by Condition Category

CCCodex description	Mean total spending for people with disease, Year 1	Mean total spending, Year 2	25th percentile total spending, Year 2	Median total spending, Year 2	75th percentile total spending, Year 2
Coagulation and hemorrhagic disorders	45707	24530	1212	5507	14856
Chronic kidney disease	42685	43214	4413	18980	39420
Acute and unspecified renal failure	39855	34567	5745	18416	42299
Paralysis	38299	25749	1954	5253	20628
Septicemia (except in labor)	34599	31774	492	3818	24418
Cancer of other GI organs; peritoneum	34037	15611	387	3410	15205
Leukemia	28968	20238	2323	9205	27926
Fracture of neck of femur (hip)	28580	15713	1221	4909	18089
HIV infection	28137	25993	8532	20485	35462
Cancer of the bronchus; lung	27746	17589	0	7074	25694
Congestive heart failure; nonhypertensive	27204	20231	2714	10688	25127
Pulmonary heart disease	26188	22623	2283	8356	24450
Other disease of veins and lymphatics	25376	24541	1851	7727	35630
Intestinal obstruction without hernia	25047	15063	1523	4536	21467
Multiple sclerosis	24820	26701	3527	13770	43103
Diabetes mellitus with complications	23801	21458	4281	10061	29000
Pancreatic disorders (not diabetes)	23679	24755	2182	8787	24573
Pleurisy; pneumothorax; pulmonary collapse	23674	15963	796	2951	12093
Complications of surgical procedures or medical care	23023	13219	1256	5447	16790
Malignant neoplasm without specification of site	22055	10665	378	4234	11015
Other and ill-defined cerebrovascular disease	21850	17090	2387	7171	20125
Non-Hodgkin's lymphoma	21677	27367	3003	9635	27926
Cancer of bladder	21544	19177	2785	6525	20492
Parkinson's disease	21007	20741	3322	8957	21300
Phlebitis; thrombophlebitis and thromboembolism	20961	24156	2694	10064	25889
Acute cerebrovascular disease	20806	16798	1865	7287	19951
Aortic and peripheral arterial embolism or thrombosis	20366	17377	2899	9205	19220
Conduction disorders	20193	18166	3283	9140	22929
Other diseases of kidney and ureters	20031	19609	3091	8042	20476
Other upper respiratory infections	3695	4328	247	988	3458
Essential Hypertension	9185	9947	1264	3836	10117
Disorders of lipid metabolism	9479	10187	1644	4308	10611
Other nontraumatic joint disorders	8586	9049	832	3203	9350
Other upper respiratory disease	5843	6247	471	1929	6436
Residual codes: unclassified	12618	12015	1497	4854	12834
Diabetes mellitus without complication	11591	12768	1992	5536	13828
Spondylosis; intervertebral disc disorders; other back problems	8294	8720	871	2970	8897
Mood disorders	10034	10229	1240	4024	11040
Intestinal infection	3322	3797	194	844	3077
Asthma	8634	8818	728	2723	8644
Other connective tissue disease	9789	10211	1074	3980	10603
Other skin disorders	6787	7185	687	2426	7039
Influenza	3989	4869	239	1052	3731

**Appendix Exhibit 2. Percent of Spending in Year 2 Among Those with Each Condition in Year 1 That Would Exceed Required “Reasonably Foreseeable Cost” Threshold**

