

Supplementary Table 1

Top 10 clusters by frequency

Gender	Age	Condition 1	Condition 2	Total Attributable Cost	Average Yearly Cost	Average Yearly Membership
F	50-65	Hypertension	Hyperlipidemia	\$93,122,272	\$7,172	4,329
F	50-65	Hypertension	Diabetes Mellitus	\$72,878,330	\$8,557	2,839
F	50-65	Hyperlipidemia	Diabetes Mellitus	\$65,165,290	\$8,143	2,668
M	50-65	Hypertension	Hyperlipidemia	\$61,719,638	\$7,948	2,589
F	50-65	Hypertension	Degenerative eye problem (glauco/eye)	\$54,012,310	\$8,240	2,185
F	50-65	Hypertension	Osteoarthritis	\$66,447,600	\$10,166	2,179
F	50-65	Hyperlipidemia	Degenerative eye problem (glauco/eye)	\$49,533,370	\$7,674	2,152
F	50-65	Hyperlipidemia	Osteoarthritis	\$56,171,247	\$9,295	2,014
F	50-65	Hypertension	Esophageal disorder and GI ulcers	\$60,965,767	\$10,297	1,974
F	50-65	Hyperlipidemia	Esophageal disorder and GI ulcers	\$53,619,011	\$9,194	1,944

Top 10 clusters by average yearly cost with 30 total member counts or more

Gender	Age	Condition 1	Condition 2	Total Attributable Cost	Average Yearly Cost	Average Yearly Membership
M	35-50	Anemia and other non-cancer heme disorders	Conduction disorder or cardiac dysrhythmia	\$8,390,439	\$90,220	31
F	50-65	Pulmonary heart disease	Anemia and other non-cancer heme disorders	\$7,542,310	\$83,803	30
M	35-50	Congestive heart failure	Malnutrition and F/E cond (not obesity/overweight) -includes disorders of metabolism	\$7,068,459	\$77,675	30
M	50-65	Conduction disorder or cardiac dysrhythmia	Immunity disorder	\$9,800,142	\$76,564	43
M	35-50	Other central and peripheral nervous system disorders	Immunity disorder	\$6,917,900	\$73,595	31

F	50-65	Congestive heart failure	Anemia and other non-cancer heme disorders	\$14,346,180	\$70,671	68
F	50-65	Congestive heart failure	Chronic skin ulcer	\$7,852,354	\$69,490	38
M	35-50	Anemia and other non-cancer heme disorders	Kidney and Vesicoureteral Disorders (excluding renal failure)	\$6,174,594	\$68,607	30
M	65+	Cardiomyopathy and Structural Heart Disease	Anemia and other non-cancer heme disorders	\$9,505,337	\$67,414	47
M	35-50	Congestive heart failure	Conduction disorder or cardiac dysrhythmia	\$7,077,370	\$67,404	35

Top 10 clusters by average yearly cost with 1,000 member counts or more

Gender	Age	Condition 1	Condition 2	Total Attributable Cost	Average Yearly Cost	Average Yearly Membership
F	50-65	Hypertension	Coronary atherosclerosis	\$45,703,351	\$14,486	1,052
F	50-65	Osteoarthritis	Other central and peripheral nervous system disorders	\$43,931,227	\$14,013	1,045
F	50-65	Hypertension	Other central and peripheral nervous system disorders	\$61,441,249	\$13,433	1,525
F	50-65	Hypertension	Asthma, COPD, other chronic lung disease	\$57,028,007	\$12,193	1,559
F	50-65	Hyperlipidemia	Other central and peripheral nervous system disorders	\$50,790,724	\$12,105	1,399
M	65+	Hypertension	Hyperlipidemia	\$40,441,616	\$11,933	1,130
F	50-65	Esophageal disorder and GI ulcers	Diabetes mellitus	\$39,891,768	\$11,827	1,124
F	50-65	Hyperlipidemia	Asthma, COPD, other chronic lung disease	\$45,652,105	\$11,757	1,294

F	50-65	Esophageal disorder and GI ulcers	Osteoarthritis	\$42,200,192	\$11,745	1,198
F	50-65	Diabetes mellitus	Osteoarthritis	\$43,479,202	\$11,591	1,250