

SFHSS Risk Score Analysis

Medical Risk Scores

- Risk Scores have been calculated utilizing the Verisk DxCG model in the Truven All Payer Claims Database (APCD). Risk scores are an actuarial tool used to predict health care costs based on the relative actuarial risk of enrollees. Verisk's DxCG model is a proprietary predictive model using age, gender and diagnoses
- In order to have scores available for the early part of the rates and benefit cycle and to have them calculated on a full year with runout, scores have been based on the period of October 2014 – September 2015 and October 2015 – September 2016
- Concurrent models use base period claims to predict expenditures in the same time period. Prospective models use base period claims to predict future expenditures
- The APCD utilizes all diagnoses available on the claim
- Consistent with what has been reported to the Health Service Board (HSB) in previous years, the scores presented are non-rescaled; that is to say based on the average of the nationwide dataset

All Plans Risk Analysis - Overview

All Plans - Overview									
Rolling Year	Population	BSC Concurrent	BSC Prospective	KP Concurrent	KP Prospective	CP Concurrent	CP Prospective	All Concurrent	All Prospective
Oct, 2015 - Sep, 2016	Total	1.24	1.25	1.03	1.09	2.60	2.39	1.130	1.173
	Actives	1.092	1.120	0.925	0.987	1.797	1.709	1.005	1.051
	Early Retirees	2.181	2.170	1.900	2.043	3.108	2.990	2.124	2.176
Oct, 2014 - Sep, 2015	Total	1.27	1.27	1.06	1.10	3.04	2.50	1.135	1.176
	Actives	1.105	1.128	0.941	0.994	1.882	1.784	1.020	1.059
	Early Retirees	2.106	2.123	1.970	2.067	3.297	2.907	2.128	2.153

- In June 2016, SFHSS reported risk scores for all of 2015 to the Health Service Board. Because these scores have been calculated on a rolling year through September, the 2015 risk score presented here have been recalculated
- Previously reported for PY2015: KP Concurrent Actives: .943 KP Prospective Actives: .993, KP Concurrent ER: 1.930, KP Prospective ER 2.038, Total KP Concurrent: 1.073, Total KP Prospective: 1.106
- Previously reported for PY2015: BSC Concurrent Actives: 1.029 BSC Prospective Actives: 1.077, BSC Concurrent ER: 1.973, BSC Prospective ER 2.035, Total BSC Concurrent: 1.184, Total BSC Prospective: 1.213. The change in scores points to an impact from Q4 of 2014

Kaiser Permanente Risk Scores by Gender/Age for Actives

Kaiser Permanente						
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score	
Oct, 2015 - Sep, 2016	ACTIVES					
Female	< 18	5,734	9.1	0.389	0.353	
	18-24	2,953	21.1	0.656	0.696	
	25-34	4,775	29.9	1.000	1.042	
	35-44	5,075	39.5	1.144	1.109	
	45-54	5,350	49.4	1.291	1.421	
	55-59	2,446	56.9	1.627	1.876	
	60-64	1,524	61.7	1.785	2.069	
	65 +	142	65.0	2.788	2.410	
	All Females*	25,764	34.3	1.017	1.075	
Male	< 18	5,991	8.9	0.425	0.370	
	18-24	3,066	21.0	0.405	0.354	
	25-34	3,869	29.8	0.455	0.459	
	35-44	4,376	39.7	0.759	0.762	
	45-54	5,209	49.5	1.064	1.238	
	55-59	2,547	56.9	1.617	1.916	
	60-64	1,667	61.8	2.099	2.422	
	65 +	164	65.0	2.408	2.636	
	All Males*	24,610	34.1	0.829	0.895	
All Active Lives*	50,374	34.2	.925	.987		

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

Kaiser Permanente Risk Scores by Gender/Age for Early Retirees

Kaiser Permanente					
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	EARLY RETIREES				
Female	< 18	86	12.9	0.527	0.487
	18-24	175	21.5	0.519	0.648
	25-34	70	25.8	0.831	1.042
	35-44	42	41.1	1.411	1.210
	45-54	392	51.4	1.788	1.871
	55-59	716	57.3	1.609	1.888
	60-64	1,329	62.1	2.064	2.206
	65 +				
	All Females*	2,545	54.3	1.733	1.890
Male	< 18	113	12.7	0.464	0.473
	18-24	177	21.2	0.457	0.407
	25-34	52	25.8	0.666	0.604
	35-44	18	42.2	1.561	1.510
	45-54	209	51.5	2.401	2.011
	55-59	552	57.3	1.850	2.065
	60-64	1,228	62.3	2.576	2.783
	65 +				
	All Males*	2,177	54.2	2.097	2.223
	All Early Retiree Lives*	4,722	54.2	1.900	2.043

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

Blue Shield Risk Scores by Gender/Age for Actives

Blue Shield					
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	ACTIVES				
Female	< 18	3,991	9.2	0.452	0.410
	18-24	1,916	21.0	0.655	0.664
	25-34	2,193	30.1	0.981	1.060
	35-44	3,419	39.8	1.154	1.165
	45-54	4,359	49.6	1.438	1.499
	55-59	2,286	57.0	1.845	1.939
	60-64	1,528	61.7	1.984	2.137
	65 +	126	65.0	2.501	2.229
	All Females*	18,110	36.3	1.146	1.182
Male	< 18	4,144	9.0	0.590	0.468
	18-24	1,951	21.0	0.533	0.403
	25-34	1,832	29.9	0.620	0.590
	35-44	2,644	39.9	0.828	0.840
	45-54	3,989	49.6	1.229	1.354
	55-59	2,097	57.0	1.750	1.957
	60-64	1,527	61.7	2.214	2.391
	65 +	139	65.0	3.099	2.882
	All Males*	16,768	35.5	1.034	1.054
All Active Lives*	34,880	35.9	1.092	1.120	

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

Blue Shield Risk Scores by Gender/Age for Early Retirees

Blue Shield					
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	EARLY RETIREES				
Female	< 18	136	13.1	1.822	1.131
	18-24	235	21.6	0.737	0.748
	25-34	80	25.7	2.602	1.694
	35-44	38	40.7	1.033	1.145
	45-54	351	51.4	1.811	1.842
	55-59	694	57.2	2.025	2.073
	60-64	1,297	62.2	2.469	2.514
	65 +			0.000	0.000
	All Females*	2,592	52.8	2.086	2.073
Male	< 18	112	12.7	0.490	0.439
	18-24	255	21.5	0.602	0.484
	25-34	72	25.6	0.908	0.557
	35-44	11	40.8	2.597	2.569
	45-54	174	51.5	3.479	2.895
	55-59	534	57.3	2.451	2.422
	60-64	1,219	62.2	2.640	2.759
	65 +			0.000	0.000
	All Males*	2,181	52.7	2.295	2.286
	All Early Retiree Lives*	4,773	52.8	2.181	2.170

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

City Plan Risk Scores by Gender/Age for Actives

City Plan					
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	ACTIVES				
Female	< 18	83	9.1	0.502	0.408
	18-24	54	21.6	0.918	0.790
	25-34	115	30.3	1.376	1.590
	35-44	123	39.7	1.502	1.319
	45-54	157	50.1	2.415	2.332
	55-59	97	57.1	4.043	3.238
	60-64	71	61.9	2.735	2.759
	65 +	12	65.0	3.609	2.617
	All Females*	658	41.3	2.081	1.917
Male	< 18	100	8.6	0.522	0.435
	18-24	51	21.5	0.868	0.662
	25-34	109	30.1	0.985	0.777
	35-44	135	39.3	0.848	0.916
	45-54	196	49.8	1.640	1.662
	55-59	128	57.2	2.424	2.579
	60-64	74	61.8	3.544	3.307
	65 +	5	65.0	1.392	1.900
	All Males*	737	41.6	1.557	1.532
All Active Lives*	1,395	41.4	1.797	1.709	

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

City Plan Risk Scores by Gender/Age for Early Retirees

City Plan					
Rolling Year	Gender/Age	Member Count	Avg Age	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	EARLY RETIREES				
Female	< 18	10	11.3	4.479	3.442
	18-24	15	21.8	3.561	2.615
	25-34	3	25.9	1.723	2.184
	35-44	3	39.8	1.673	1.451
	45-54	65	51.3	1.938	1.972
	55-59	114	57.3	2.438	2.477
	60-64	312	62.2	3.537	3.086
	65 +			0.000	0.000
	All Females*	488	57.9	3.091	2.795
Male	< 18	12	12.2	0.815	0.613
	18-24	12	20.2	0.512	0.464
	25-34	4	25.0	0.681	0.581
	35-44	3	41.7	0.230	0.459
	45-54	43	52.4	3.737	4.046
	55-59	119	57.4	3.219	3.175
	60-64	254	62.3	3.273	3.432
	65 +			0.000	0.000
	All Males*	409	57.4	3.129	3.230
	All Early Retiree Lives*	897	57.7	3.108	2.990

*These member counts are for unique members. Within the age bands and individual may be counted twice if they crossed age bands during the year. The risk score is weighted based on their member months within the age group.

All Plans Combined – Active Lives by Relationship

All Plans - Active & Dependents			
Rolling Year	Population	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	85,444	1.005	1.051
Employees	41,231	1.242	1.338
Spouses	15,473	1.317	1.403
Children	28,740	0.492	0.444
Oct, 2014 - Sep, 2015	83,079	1.020	1.059
Employees	39,785	1.284	1.362
Spouses	15,136	1.313	1.391
Children	28,158	0.483	0.443

- The presentation of age bands by health plan for actives totals 86,649 lives.
- Due to the rolling year presentation which crosses plan years, 85,444 reflects total unique lives
- Within the active population, the risk scores for the spouse/domestic partners are higher than the employees

All Plans Combined – Early Retiree Lives by Relationship

All Plans – Early Retirees & Dependents			
Rolling Year	Population	Avg Concurrent Risk Score	Avg Prospective Risk Score
Oct, 2015 - Sep, 2016	10,126	2.124	2.176
Early Retiree	6,697	2.434	2.511
Spouses	2,006	1.972	2.064
Children	1,423	0.829	0.697
Oct, 2014 - Sep, 2015	10,237	2.128	2.153
Early Retiree	6,788	2.410	2.474
Spouses	1,983	2.132	2.104
Children	1,466	0.745	0.650

- The presentation of age bands by health plan for early retirees totals 10,392 lives.
- Due to the rolling year presentation which crosses plan years, 10,126 reflects total unique lives
- Within the early retiree population the risk score for the spouse/domestic partners is lower than the early retiree which may be a result of the disability retirements

Benchmarks – All Plans comparison – Allowed Amount PMPM

Actives & Early Retirees						
Rolling Year	Population	Members Avg Med or Rx	Relative Risk Score Concurrent	Allow Amt PMPM Med and Rx	Dyn Adj Allow Amt PMPM Med and Rx	Ratio Dyn Adj Allow Amt PMPM Med and Rx
Oct, 2015 - Sep, 2016	TOTAL	86,929	1.15	\$517.09	\$517.44	1.0
	Blue Shield	35,985	1.242	\$652.41	\$558.51	1.17
	City Plan	1,817	2.604	\$1,320.21	\$1,171.03	1.13
	Kaiser	49,128	1.031	\$388.25	\$463.20	0.84

- Blue Shield Medical and RX PMPM allowed amounts were 17% higher when adjusted based on age/gender and diagnoses. Blue Shield is the least efficient of the three plans in this area
- City Plan Medical and RX PMPM allowed amounts were 13% higher when adjusted based on age/gender and diagnoses
- Kaiser Permanente Medical and RX PMPM allowed amounts were 16% lower when adjusted based on age/gender and diagnoses
- This report uses the average number of members per month with medical enrollment which differs from the unique count of members found in other pages of this report

Conclusion

- Prospective Risk scores experienced a slight improvement with the addition of younger lives to the risk pool
- Across all plans, the male population for the early retirees has a higher risk score than the female population
- Across all plans the female population for active employees has a higher risk score than the male population
- Blue Shield's Allowed Amount Med and RX PMPM was more costly when adjusting for age/sex and diagnosis and the least efficient of the three plans