



Case Study

SPRING 2022

Group & Health Design & Pricing EXAM

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Case Study – Group & Health, Design & Pricing

Introduction

In this case study, you are the President at the Skyfall Actuarial Consulting firm (Skyfall or Firm). The case study will outline the characteristics of the Firm and provide details regarding the various current clients and prospective clients of Skyfall.

All numbers found in this case study are for illustrative purposes only and are not representative of true costs or actual relationships. Any similarities with actual company results are coincidental. Plan design and plan limitations for a given plan year may not be in compliance with current year guidance, regulations, or laws.

Firm Description

Skyfall is a medium-sized consulting firm that was founded in London, Texas and provides actuarial services to life and health insurance companies, state and federal regulatory agencies, and employers. The Firm's staff consists of over 50 actuaries who are located in the United States.

Additionally, Skyfall has a location in London, Ontario, which provides actuarial services to clients, employers and insurance carriers in Canada. The Canadian office consists of over 25 actuaries who are located throughout Canada.

Skyfall employs roughly 50 actuarial students between the two locations. These students assist in daily tasks and client management. Skyfall is committed to the development and training of future actuaries, and this can be seen in the level of training and types of projects that actuarial students assist with.

The Firm's areas of expertise include:

- Individual and Small Group Major Medical Plans
- Large Group Major Medical Plans
- Medicare Advantage and Part D Plans
- Medicaid Plans
- Medicare Supplement Plans
- Retiree Health Benefit Plans
- Group Disability Plans
- Individual and Small Group Dental Plans
- Large Group Dental Plans
- Group Life
- Group Long-Term Care
- Cafeteria Plans/Flexible Benefits.

The corporate goal is to provide affordable and quality actuarial services to its clients to ensure that they have the tools to be successful in their business endeavors. Skyfall aims to build long-lasting client relationships and strives to provide excellent services for its clients. Due to its size, the Firm caters to each client's unique needs and aims to exceed the client's expectations.

Below is a list of some of Skyfall's current and prospective clients.

Skyfall’s Clients

Quantum Health Insurance Company (Quantum)

Quantum Health Insurance Company provides individual and small group coverage to its policyholders. Since its inception, Quantum has provided health care services to individuals and small groups and actively seeks to improve the overall health of its members. Skyfall’s services include the development and pricing of its products, regulatory compliance guidance, and valuation services.

Individual and Small Group Major Medical Plans

Quantum actively participates in the Health Insurance Marketplace and SHOP Marketplace in most states in the US. Quantum offers all metal tier options: Bronze, Silver, Gold, and Platinum as well as Catastrophic plans. Similar products are also available off of the Exchanges and sold through brokers and agents.

Prior to the Affordable Care Act (ACA), Quantum offered major medical plans, such as HMOs, PPOs, and High Deductible Health Plans (HDHP). These plans are not ACA-compliant and are now classified as grandfathered plans. These grandfathered plans, originally marketed and sold to individuals and small groups, are no longer available for new business. The grandfathered plan block is called Quantum Legacy III.

Exhibit 1 shows a sample of the plan designs Quantum has in its portfolio of grandfathered plans and exchange plans. The first chart of Exhibit 1 shows the most sold grandfathered plan design for each year. The remainder of Exhibit 1 includes the product offerings available through the Health Insurance Marketplaces, SHOP Marketplaces, and off exchange. Key email correspondence between Quantum and Skyfall with detailed exhibits are also included.

Exhibit 1 – Benefit Summary (Grandfathered Plans)			
Quantum Legacy III Individual and Small Group			
Benefit Category*	Year 2	Year 3	Year 4
Deductible	\$500 IN/ \$1,000 OON	\$1,000 IN/ \$2,000 OON	\$1,500 IN/ \$3,000 OON
General Coinsurance	10% IN/ 30% OON	20% IN/ 40% OON	20% IN/ 40% OON
Maximum Out-of-Pocket	\$2,200 IN/ \$4,400 OON	\$3,000 IN/ \$6,000 OON	\$3,500 IN/ \$7,000 OON
PCP	\$25 IN/ Ded + Coins OON	\$30 IN/ Ded + Coins OON	\$30 IN/ Ded + Coins OON
Specialist	\$50 IN/ Ded + Coins OON	\$60 IN/ Ded + Coins OON	\$60 IN/ Ded + Coins OON
Prescription Drugs (Generic/Preferred Brand/Non-Preferred Brand/Specialty)	\$5/\$40/\$60/\$100 IN/ All Tiers 30% Coins OON	\$10/\$50/\$75/\$150 IN/ All Tiers 40% Coins OON	\$10/\$50/\$75/20% IN/ All Tiers 40% Coins OON

*All other benefits are subject to Deductible and Coinsurance

**IN = In-Network Benefits, OON = Out-of-Network Benefits

Exhibit 1 (con't) – Benefit Summary (Exchange Plans)			
Benefit Category	Quantum HealthEdge	Quantum Health Direct	Quantum Health Plans
Deductible	\$7,000 IN/ \$14,000 OON	\$5,500 IN/ \$11,000 OON	\$4,000 IN/ \$8,000 OON
General Coinsurance	0% IN/ 25% OON	20% IN/ 40% OON	20% IN/ 40% OON
Maximum Out-of-Pocket	\$7,000 IN/ \$14,000 OON	\$7,250 IN/ \$14,700 OON	\$7,450 IN/ \$14,700 OON
PCP	Deductible + Coinsurance	Deductible + Coinsurance	\$35 IN/ Ded + Coins OON
Specialist	Deductible + Coinsurance	Deductible + Coinsurance	\$55 IN/ Ded + Coins OON
Inpatient Services	Deductible + Coinsurance	Deductible + Coinsurance	Deductible + Coinsurance
Outpatient Facility	Deductible + Coinsurance	Deductible + Coinsurance	Deductible + Coinsurance
Outpatient Surgical	Deductible + Coinsurance	Deductible + Coinsurance	Deductible + Coinsurance
Emergency	Deductible + Coinsurance	Deductible + Coinsurance	Deductible + Coinsurance
Labs, X-Ray, Advanced Imaging	Deductible + Coinsurance	Deductible + Coinsurance	Deductible + Coinsurance
Prescription Drugs (Generic/Preferred Brand/Non-Preferred Brand/Specialty)	Deductible + Coinsurance	Deductible + Coinsurance	\$10/\$50/\$100/\$150 IN 50% All Tiers OON

Exhibit 1 (con't) – Benefit Summary (Exchange Plans)		
Benefit Category	Quantum Health Premium	Quantum Health Complete
Deductible	\$1,750 IN/ \$3,500 OON	\$2,000 IN/ \$2,500 OON
General Coinsurance	20% IN/ 40% OON	20% IN/ 40% OON
Maximum Out-of-Pocket	\$4,000 IN/ \$8,000 OON	\$2,000 IN/ \$8,000 OON
PCP	\$10 IN/ Ded + Coins OON	\$15 IN/ Ded + Coins OON
Specialist	\$60 IN/ Ded + Coins OON	\$35 IN/ Ded + Coins OON
Inpatient Services	Deductible + Coinsurance	Deductible + Coinsurance
Outpatient Facility	Deductible + Coinsurance	Deductible + Coinsurance
Outpatient Surgical	Deductible + Coinsurance	Deductible + Coinsurance
Emergency	Deductible + Coinsurance	Deductible + Coinsurance
Labs, X-Ray, Advanced Imaging	Deductible + Coinsurance	Deductible + Coinsurance
Prescription Drugs (Generic/Preferred Brand/Non-Preferred Brand/Specialty)	\$10/\$35/\$75/\$150 IN 50% All Tiers OON	\$5/\$25/\$75/\$35% Coins IN 30% All Tiers OON

Quantum Email 1

From: Dominic Greene <DGreene@quantum.com>
 To: You <JB007@Skyfall.com>
 Sent: March 2nd, Year 5
 Subject: Quantum Experience Exhibits

As discussed in our call, here are several exhibits that we have updated recently for our legacy products (includes the plan designs seen in Exhibit 1 as well as others) and the currently issued Exchange products for the individual market. As we are looking toward future pricing needs, we hope these exhibits will be helpful.

Additionally, there have been a lot of discussions about reinsurance. To help in calculating different scenarios, we are providing some continuance tables that should help as we explore all our options here.

Thank you,
 Dominic Greene
 President
 Quantum Health Insurance Company

Enclosures:

Exhibit 2 – Quantum Health Individual Claims Continuance Probability Distribution							
Claims Dollar Interval		Year 2		Year 3		Year 4	
		Cumulative Frequency	Cumulative Annual Cost	Cumulative Frequency	Cumulative Annual Cost	Cumulative Frequency	Cumulative Annual Cost
\$0.00	\$0.00	1.00	\$4,300	1.00	\$3,500	1.00	\$3,700
\$0.01	\$2,500.00	0.91	\$4,300	0.90	\$3,500	0.93	\$3,700
\$2,500.01	\$5,000.00	0.47	\$4,000	0.42	\$3,300	0.32	\$3,500
\$5,000.01	\$7,500.00	0.30	\$3,700	0.29	\$3,100	0.23	\$3,300
\$7,500.01	\$10,000.00	0.25	\$3,500	0.23	\$2,900	0.17	\$2,900
\$10,000.01	\$15,000.00	0.19	\$3,300	0.18	\$2,800	0.14	\$2,800
\$15,000.01	\$20,000.00	0.15	\$3,000	0.14	\$2,500	0.10	\$2,500
\$20,000.01	\$30,000.00	0.10	\$2,800	0.11	\$2,300	0.09	\$2,300
\$30,000.01	\$40,000.00	0.07	\$2,300	0.07	\$2,000	0.05	\$1,800
\$40,000.01	\$50,000.00	0.04	\$2,000	0.05	\$1,800	0.04	\$1,800
\$50,000.01	\$75,000.00	0.03	\$1,900	0.04	\$1,700	0.03	\$1,500
\$75,000.01	\$100,000.00	0.02	\$1,500	0.02	\$1,300	0.02	\$1,300
\$100,000.01	\$250,000.00	0.01	\$1,200	0.01	\$1,000	0.01	\$1,000
\$250,000.01+		0.00	\$600	0.00	\$500	0.00	\$400

Exhibit 3 – Individual Utilization and Cost per Service						
Service Category	Year 2		Year 3		Year 4	
	Utilization/ 1000	Allowed Cost	Utilization/ 1000	Allowed Cost	Utilization/ 1000	Allowed Cost
Inpatient	150	\$4,300.00	160	\$4,450.00	170	\$4,425.00
Outpatient	900	\$1,320.00	966	\$1,360.00	1,015	\$1,380.00
Physician	11,650	\$85.00	12,014	\$89.00	12,340	\$90.00
Rx	7,510	\$50.00	7,889	\$51.00	8,209	\$53.00

Exhibit 4 – Monthly Experience				
Quantum Legacy III - Individual				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 2	7,896	2,308,948	2,727,060	118.1%
2-Year 2	8,055	2,376,987	2,305,355	97.0%
3-Year 2	8,077	2,377,052	2,013,934	84.7%
4-Year 2	8,504	2,395,695	1,980,865	82.7%
5-Year 2	8,516	2,402,690	2,644,293	110.1%
6-Year 2	8,672	2,412,340	2,687,159	111.4%
7-Year 2	8,881	2,416,038	1,425,978	59.0%
8-Year 2	8,975	2,469,789	2,493,046	100.9%
9-Year 2	9,323	2,562,306	2,452,640	95.7%
10-Year 2	9,455	2,573,594	2,470,458	96.0%
11-Year 2	9,700	2,698,180	2,129,643	78.9%
12-Year 2	9,796	3,028,317	2,607,637	86.1%
1-Year 3	9,833	3,127,177	2,957,608	94.6%
2-Year 3	9,515	2,854,636	2,467,525	86.4%
3-Year 3	9,473	2,839,725	2,798,587	98.6%
4-Year 3	9,358	2,806,420	1,967,551	70.1%
5-Year 3	9,123	2,692,078	1,902,958	70.7%
6-Year 3	8,845	2,621,356	1,439,505	54.9%
7-Year 3	8,741	2,611,980	1,841,738	70.5%
8-Year 3	8,532	2,609,085	1,872,887	71.8%
9-Year 3	8,530	2,595,166	2,297,758	88.5%
10-Year 3	8,415	2,542,347	2,185,568	86.0%
11-Year 3	8,114	2,513,110	2,435,339	96.9%
12-Year 3	7,919	2,484,546	1,782,739	71.8%
1-Year 4	4,926	1,724,350	1,888,421	109.5%
2-Year 4	4,742	1,648,085	1,132,959	68.7%
3-Year 4	4,719	1,617,855	1,629,605	100.7%
4-Year 4	4,692	1,611,003	1,255,126	77.9%
5-Year 4	4,633	1,609,329	1,492,868	92.8%
6-Year 4	4,495	1,604,901	1,329,293	82.8%
7-Year 4	4,484	1,582,986	1,179,047	74.5%
8-Year 4	4,205	1,552,740	1,246,276	80.3%
9-Year 4	4,179	1,493,549	1,485,512	99.5%
10-Year 4	4,038	1,493,368	1,049,021	70.2%
11-Year 4	3,968	1,434,833	1,056,524	73.6%
12-Year 4	3,917	1,406,997	1,115,118	79.3%
Year 2 Total	105,850	30,021,936	27,938,068	93.1%
Year 3 Total	106,398	32,297,626	25,949,763	80.3%
Year 4 Total	52,998	18,779,996	15,859,770	84.5%
Total	265,246	81,099,558	69,747,601	86.0%

Exhibit 4 (con't) – Monthly Experience				
HMO – Individual				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	4,756	1,313,398	1,242,180	94.6%
2-Year 3	4,821	1,353,369	1,169,842	86.4%
3-Year 3	4,966	1,407,304	1,475,630	104.9%
4-Year 3	5,011	1,437,196	1,007,603	70.1%
5-Year 3	5,108	1,486,992	1,051,115	70.7%
6-Year 3	5,217	1,543,190	955,458	61.9%
7-Year 3	5,379	1,602,454	1,129,909	70.5%
8-Year 3	5,365	1,592,353	1,143,044	71.8%
9-Year 3	5,417	1,607,610	1,423,377	88.5%
10-Year 3	5,493	1,622,780	1,395,048	86.0%
11-Year 3	5,529	1,633,481	1,256,235	76.9%
12-Year 3	5,536	1,656,942	1,122,218	67.7%
1-Year 4	5,564	1,671,920	1,712,584	102.4%
2-Year 4	5,540	1,622,609	1,735,664	107.0%
3-Year 4	5,726	1,676,295	1,473,069	87.9%
4-Year 4	5,927	1,683,622	1,321,601	78.5%
5-Year 4	6,120	1,868,722	1,765,844	94.5%
6-Year 4	6,100	1,843,985	1,610,824	87.4%
7-Year 4	6,297	1,934,695	1,477,412	76.4%
8-Year 4	6,365	1,940,690	1,696,640	87.4%
9-Year 4	6,469	1,984,589	2,012,484	101.4%
10-Year 4	6,505	1,984,241	1,359,332	68.5%
11-Year 4	6,588	2,005,483	1,504,076	75.0%
12-Year 4	6,854	2,419,834	1,830,674	75.7%
Total	136,653	40,893,756	33,871,863	82.8%

Exhibit 4 (con't) – Monthly Experience				
PPO – Individual				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	1,475	425,464	435,862	102.4%
2-Year 3	1,504	437,902	449,573	102.7%
3-Year 3	1,493	434,361	394,721	90.9%
4-Year 3	1,497	439,309	359,854	81.9%
5-Year 3	1,506	440,116	414,950	94.3%
6-Year 3	1,524	445,118	453,525	101.9%
7-Year 3	1,546	452,713	274,508	60.6%
8-Year 3	1,558	456,807	468,906	102.6%
9-Year 3	1,550	453,270	414,260	91.4%
10-Year 3	1,574	459,934	400,301	87.0%
11-Year 3	1,588	466,030	359,677	77.2%
12-Year 3	1,584	466,325	372,686	79.9%
1-Year 4	1,595	474,771	447,793	94.3%
2-Year 4	1,621	470,308	473,346	100.6%
3-Year 4	1,645	477,046	476,930	100.0%
4-Year 4	1,644	462,601	393,892	85.1%
5-Year 4	1,678	507,551	451,551	89.0%
6-Year 4	1,766	528,827	465,463	88.0%
7-Year 4	1,794	546,004	418,600	76.7%
8-Year 4	1,775	536,106	466,422	87.0%
9-Year 4	1,877	570,417	577,881	101.3%
10-Year 4	1,899	573,809	406,465	70.8%
11-Year 4	1,878	566,312	449,824	79.4%
12-Year 4	1,981	692,821	545,377	78.7%
Total	39,552	11,783,922	10,372,367	88.0%

Exhibit 4 (con't) – Monthly Experience				
Total - Individual (HMO & PPO)				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	6,231	1,738,862	1,678,042	96.5%
2-Year 3	6,325	1,791,272	1,619,414	90.4%
3-Year 3	6,459	1,841,664	1,870,352	101.6%
4-Year 3	6,508	1,876,505	1,367,457	72.9%
5-Year 3	6,614	1,927,108	1,466,065	76.1%
6-Year 3	6,741	1,988,308	1,408,983	70.9%
7-Year 3	6,925	2,055,167	1,404,417	68.3%
8-Year 3	6,923	2,049,160	1,611,950	78.7%
9-Year 3	6,967	2,060,881	1,837,637	89.2%
10-Year 3	7,067	2,082,715	1,795,349	86.2%
11-Year 3	7,117	2,099,511	1,615,912	77.0%
12-Year 3	7,120	2,123,267	1,494,904	70.4%
1-Year 4	7,159	2,146,691	2,160,377	100.6%
2-Year 4	7,161	2,092,917	2,209,010	105.5%
3-Year 4	7,371	2,153,341	1,949,999	90.6%
4-Year 4	7,571	2,146,223	1,715,493	79.9%
5-Year 4	7,798	2,376,273	2,217,395	93.3%
6-Year 4	7,866	2,372,812	2,076,287	87.5%
7-Year 4	8,091	2,480,699	1,896,012	76.4%
8-Year 4	8,140	2,476,796	2,163,062	87.3%
9-Year 4	8,346	2,555,006	2,590,365	101.4%
10-Year 4	8,404	2,558,050	1,765,797	69.0%
11-Year 4	8,466	2,571,795	1,953,900	76.0%
12-Year 4	8,835	3,112,655	2,376,051	76.3%
Total	176,205	52,677,678	44,244,230	84.0%

****Quantum Email 2****

From: Strawberry Fields <SFields@quantum.com>
 To: You <JB007@Skyfall.com>
 Sent: March 12th, Year 5
 Subject: More Quantum Experience Exhibits

Dominic requested that I send you similar experience exhibits for the small group market. I was not sure what all you needed. So, I have included a fair amount of details here for the small group market. If I missed something, please let me know.

Thanks!!!! S.F.

Small Group Pricing - Actuarial
 Quantum Health Insurance Company

Enclosures:

Exhibit 5 – Quantum Health Small Group Claims Continuance Probability Distribution							
Claims Dollar Interval		Year 2		Year 3		Year 4	
		Cumulative Frequency	Cumulative Annual Cost	Cumulative Frequency	Cumulative Annual Cost	Cumulative Frequency	Cumulative Annual Cost
\$0.00	\$0.00	1.00	\$4,400	1.00	\$4,700	1.00	\$5,000
\$0.01	\$2,500.00	0.92	\$4,400	0.88	\$4,700	0.93	\$5,000
\$2,500.01	\$5,000.00	0.46	\$4,100	0.44	\$4,400	0.33	\$4,700
\$5,000.01	\$7,500.00	0.31	\$3,800	0.29	\$4,200	0.22	\$4,500
\$7,500.01	\$10,000.00	0.25	\$3,600	0.23	\$3,900	0.17	\$3,900
\$10,000.01	\$15,000.00	0.19	\$3,400	0.19	\$3,800	0.14	\$3,800
\$15,000.01	\$20,000.00	0.17	\$3,100	0.13	\$3,400	0.10	\$3,400
\$20,000.01	\$30,000.00	0.09	\$2,900	0.11	\$3,100	0.08	\$3,100
\$30,000.01	\$40,000.00	0.08	\$2,400	0.07	\$2,700	0.03	\$2,400
\$40,000.01	\$50,000.00	0.03	\$2,000	0.04	\$2,400	0.05	\$2,400
\$50,000.01	\$75,000.00	0.04	\$1,900	0.03	\$2,300	0.02	\$2,000
\$75,000.01	\$100,000.00	0.02	\$1,500	0.04	\$1,700	0.01	\$1,800
\$100,000.01	\$250,000.00	0.01	\$1,200	0.01	\$1,300	0.00	\$1,400
\$250,000.01+		0.01	\$600	0.00	\$700	0.01	\$500

Exhibit 6 – Small Group Utilization and Cost per Service						
Service Category	Year 2		Year 3		Year 4	
	Utilization/ 1000	Allowed Cost	Utilization/ 1000	Allowed Cost	Utilization/ 1000	Allowed Cost
Inpatient	250	\$3,590.00	263	\$3,560.00	281	\$3,550.00
Outpatient	1,170	\$1,380.00	1,250	\$1,410.00	1,325	\$1,435.00
Physician	14,500	\$85.00	14,950	\$87.00	15,360	\$88.00
Rx	9,530	\$69.00	9,940	\$70.00	10,520	\$71.00

Exhibit 7 – Monthly Experience				
Quantum Legacy III - Small Group				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 2	5,107	1,483,448	1,106,163	74.6%
2-Year 2	5,178	1,508,919	1,516,147	100.5%
3-Year 2	5,838	1,710,264	1,872,736	109.5%
4-Year 2	5,798	1,714,651	1,137,072	66.3%
5-Year 2	5,981	1,783,034	1,242,488	69.7%
6-Year 2	6,031	1,805,447	1,175,904	65.1%
7-Year 2	5,999	1,815,089	1,244,004	68.5%
8-Year 2	6,169	1,870,761	1,268,556	67.8%
9-Year 2	6,051	1,847,254	1,214,498	65.7%
10-Year 2	6,043	1,857,291	1,419,278	76.4%
11-Year 2	5,976	1,848,841	1,562,616	84.5%
12-Year 2	5,896	1,831,581	1,603,904	87.6%
1-Year 3	5,913	1,834,676	1,982,137	108.0%
2-Year 3	5,935	1,847,569	1,829,711	99.0%
3-Year 3	5,659	1,826,889	1,225,415	67.1%
4-Year 3	5,566	1,792,647	1,335,881	74.5%
5-Year 3	5,358	1,732,352	1,529,595	88.3%
6-Year 3	5,323	1,726,199	1,307,705	75.8%
7-Year 3	5,392	1,752,999	1,662,432	94.8%
8-Year 3	5,163	1,692,462	1,244,213	73.5%
9-Year 3	5,000	1,650,000	1,457,773	88.3%
10-Year 3	4,934	1,639,458	1,269,054	77.4%
11-Year 3	4,851	1,620,707	1,142,181	70.5%
12-Year 3	4,813	1,617,934	1,564,836	96.7%
1-Year 4	4,627	1,156,267	709,103	61.3%
2-Year 4	4,538	1,168,461	1,153,891	98.8%
3-Year 4	4,532	1,178,689	1,219,417	103.5%
4-Year 4	4,523	1,180,709	890,609	75.4%
5-Year 4	4,485	1,194,370	991,462	83.0%
6-Year 4	4,482	1,202,050	1,142,704	95.1%
7-Year 4	4,422	1,232,984	977,430	79.3%
8-Year 4	4,378	1,277,086	1,326,278	103.9%
9-Year 4	4,348	1,257,562	1,058,223	84.1%
10-Year 4	4,231	1,262,044	1,286,328	101.9%
11-Year 4	3,884	1,305,971	1,259,644	96.5%
12-Year 4	3,830	1,330,917	1,439,982	108.2%
Year 2 Total	70,064	21,076,580	16,363,366	77.6%
Year 3 Total	63,904	20,733,892	17,550,933	84.6%
Year 4 Total	52,280	14,747,110	13,455,071	91.2%
Total	186,248	56,557,582	47,369,370	83.8%

Exhibit 7 (con't) – Monthly Experience				
HMO - Small Group				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	3,268	876,334	804,913	91.9%
2-Year 3	3,307	896,787	911,135	101.6%
3-Year 3	3,355	919,265	849,861	92.5%
4-Year 3	3,391	938,959	728,820	77.6%
5-Year 3	3,482	965,700	785,693	81.4%
6-Year 3	3,460	965,855	602,307	62.4%
7-Year 3	3,511	983,688	747,308	76.0%
8-Year 3	3,573	1,012,091	713,929	70.5%
9-Year 3	3,601	1,031,222	873,342	84.7%
10-Year 3	3,637	1,043,510	697,169	66.8%
11-Year 3	3,652	1,053,702	749,077	71.1%
12-Year 3	3,670	1,063,100	890,559	83.8%
1-Year 4	3,709	1,077,568	1,039,701	96.5%
2-Year 4	3,693	1,076,273	727,356	67.6%
3-Year 4	3,817	1,118,398	833,351	74.5%
4-Year 4	3,951	1,168,634	1,026,324	87.8%
5-Year 4	4,080	1,216,416	912,189	75.0%
6-Year 4	4,067	1,217,503	707,406	58.1%
7-Year 4	4,198	1,270,169	927,410	73.0%
8-Year 4	4,243	1,286,799	862,712	67.0%
9-Year 4	4,313	1,316,683	888,239	67.5%
10-Year 4	4,337	1,332,857	1,027,073	77.1%
11-Year 4	4,392	1,358,787	1,233,459	90.8%
12-Year 4	4,569	1,419,454	1,178,101	83.0%
Total	91,277	26,609,753	20,717,433	77.9%

Exhibit 7 (con't) – Monthly Experience				
PPO - Small Group				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	1,665	465,587	373,702	80.3%
2-Year 3	1,671	470,278	507,025	107.8%
3-Year 3	1,688	482,019	564,720	117.2%
4-Year 3	1,704	486,782	298,661	61.4%
5-Year 3	1,705	489,699	354,908	72.5%
6-Year 3	1,722	497,272	315,337	63.4%
7-Year 3	1,733	499,760	336,015	67.2%
8-Year 3	1,758	511,295	360,132	70.4%
9-Year 3	1,766	517,551	337,224	65.2%
10-Year 3	1,779	525,619	427,186	81.3%
11-Year 3	1,779	531,045	430,718	81.1%
12-Year 3	1,788	535,942	513,888	95.9%
1-Year 4	1,814	543,068	406,715	74.9%
2-Year 4	1,919	580,575	600,567	103.4%
3-Year 4	1,921	582,599	335,520	57.6%
4-Year 4	1,981	604,894	416,739	68.9%
5-Year 4	2,071	636,580	400,022	62.8%
6-Year 4	2,112	653,390	480,400	73.5%
7-Year 4	2,174	675,224	383,458	56.8%
8-Year 4	2,082	645,946	552,819	85.6%
9-Year 4	2,140	666,265	479,039	71.9%
10-Year 4	2,172	701,155	614,218	87.6%
11-Year 4	2,134	687,468	718,762	104.6%
12-Year 4	2,231	721,361	775,905	107.6%
Total	45,509	13,711,376	10,983,680	80.1%

Exhibit 7 (con't) – Monthly Experience				
Total - Small Group (HMO & PPO)				
Calendar Month	Members	Premiums	Incurred Claims	Loss Ratio
1-Year 3	4,933	1,341,922	1,178,615	87.8%
2-Year 3	4,978	1,367,064	1,418,160	103.7%
3-Year 3	5,043	1,401,284	1,414,581	100.9%
4-Year 3	5,095	1,425,741	1,027,481	72.1%
5-Year 3	5,187	1,455,399	1,140,602	78.4%
6-Year 3	5,182	1,463,127	917,644	62.7%
7-Year 3	5,244	1,483,448	1,083,323	73.0%
8-Year 3	5,331	1,523,386	1,074,061	70.5%
9-Year 3	5,367	1,548,772	1,210,566	78.2%
10-Year 3	5,416	1,569,129	1,124,355	71.7%
11-Year 3	5,431	1,584,748	1,179,795	74.4%
12-Year 3	5,458	1,599,042	1,404,446	87.8%
1-Year 4	5,523	1,620,636	1,446,416	89.2%
2-Year 4	5,612	1,656,848	1,327,923	80.1%
3-Year 4	5,739	1,700,997	1,168,871	68.7%
4-Year 4	5,933	1,773,528	1,443,063	81.4%
5-Year 4	6,151	1,852,996	1,312,211	70.8%
6-Year 4	6,179	1,870,893	1,187,806	63.5%
7-Year 4	6,372	1,945,393	1,310,868	67.4%
8-Year 4	6,325	1,932,745	1,415,531	73.2%
9-Year 4	6,453	1,982,948	1,367,278	69.0%
10-Year 4	6,509	2,034,012	1,641,291	80.7%
11-Year 4	6,526	2,046,255	1,952,221	95.4%
12-Year 4	6,800	2,140,815	1,954,006	91.3%
Total	136,786	40,321,129	31,701,113	78.6%

Quantum Email 3

From: Dominic Greene <DGreene@quantum.com>
 To: You <JB007@Skyfall.com>
 Sent: March 20th, Year 5
 Subject: Rx Data

Here is some Rx data that is applicable to both individual and small group markets.

Dominic
 Enclosures:

Exhibit 8 – Rx Information				
		Year 2	Year 3	Year 4
Average Wholesale Price	Generic	\$45.00	\$50.00	\$55.00
	Preferred Brand	\$200.00	\$190.00	\$205.00
	Non-Preferred Brand	\$235.00	\$245.00	\$250.00
	Specialty	\$2,585.00	\$2,675.00	\$2,700.00
Discounts	Generic	70%	75%	75%
	Preferred Brand	15%	20%	25%
	Non-Preferred Brand	10%	12%	15%
	Specialty	8%	8%	10%
Dispensing Fees	Generic	\$1.50	\$1.50	\$2.00
	Preferred Brand	\$1.50	\$1.50	\$2.00
	Non-Preferred Brand	\$1.50	\$1.50	\$2.00
	Specialty	\$1.50	\$1.50	\$2.00

****Quantum Email 4****

From: Dominic Greene <DGreene@quantum.com>
 To: You <JB007@Skyfall.com>
 Sent: March 27, Year 5
 Subject: Provider Reimbursements

We are in discussions with a number of our providers about establishing innovative provider reimbursement arrangements.

I had my team pull together some costs for common procedures by service type:

Exhibit 9 – Procedure Costs						
	Knee Replacement		Hip Replacement		Cesarean Section	
Service Category	Year 3	Year 4	Year 3	Year 4	Year 3	Year 4
Facility	\$17,250.00	\$18,450.00	\$13,450.00	\$14,500.00	\$7,100.00	\$7,400.00
Medical Supplies and Equipment	\$8,750.00	\$9,000.00	\$5,480.00	\$6,450.00	\$2,100.00	\$2,200.00
Professional	\$9,250.00	\$10,000.00	\$8,750.00	\$9,200.00	\$3,000.00	\$3,150.00

Exhibit 9 – Procedure Costs (con't)						
	Colonoscopy		Appendectomy		Cardiac Stent	
Service Category	Year 3	Year 4	Year 3	Year 4	Year 3	Year 4
Facility	\$950.00	\$1,100.00	\$7,500.00	\$7,950.00	\$10,500.00	\$11,750.00
Medical Supplies and Equipment	\$300.00	\$300.00	\$1,500.00	\$1,740.00	\$6,000.00	\$6,500.00
Professional	\$685.00	\$700.00	\$1,100.00	\$1,150.00	\$4,500.00	\$4,750.00

Dominic

Quantum Email 5

From: Dominic Greene <DGreene@quantum.com>
 To: You <JB007@Skyfall.com>
 Sent: April 4, Year 5
 Subject: Year 5 Hospital Utilization Projection

We are projecting the following Year 5 cost and utilization details for three hospitals in our provider network:

Exhibit 10A				
Procedure	Category	Hospital A	Hospital B	Hospital C
Knee Replacement	Admissions	13	16	23
	Average length of stay	3.1	3.5	3.2
	Average billed charges per day	\$10,000	\$14,000	\$13,000
	Average allowed per day	\$5,515	\$5,600	\$5,755
Hip Replacement	Admissions	15	20	10
	Average length of stay	3.1	3	3.3
	Average billed charges per day	\$10,000	\$8,000	\$15,000
	Average allowed per day	\$4,600	\$4,900	\$4,400
Cesarean Section	Admissions	50	35	40
	Average length of stay	3.2	3.1	3.4
	Average billed charges per day	\$4,800	\$3,000	\$4,000
	Average allowed per day	\$2,400	\$2,500	\$2,000
Colonoscopy	Visits	80	90	100
	Average billed charges per visit	\$1,700	\$1,800	\$1,900
	Average allowed per visit	\$1,200	\$900	\$1,100
Appendectomy	Admissions	48	62	50
	Average length of stay	1.5	1.9	1.8
	Average billed charges per day	\$6,000	\$7,000	\$8,000
	Average allowed per day	\$4,100	\$4,400	\$5,100
Cardiac Stent	Admissions	20	16	18
	Average length of stay	3.5	2.9	3.2
	Average billed charges per day	\$4,500	\$4,000	\$8,000
	Average allowed per day	\$3,500	\$3,900	\$3,700

Dominic

****Quantum Email 6****

From: Dominic Greene <DGreene@quantum.com>
To: You <JB007@Skyfall.com>
Sent: April 14, Year 5
Subject: Year 6 Bundle Targets

We are targeting the following changes in our professional and medical equipment provider contracts for Year 6:

Exhibit 10B	
Professional services increase from Year 5	2.0%
Medical equipment and supplies increase from Year 5	3.5%

We are also pursuing bundled contracts for select services. Proposed bundled payment rates are:

Exhibit 10C	
Knee Replacement	\$38,200 per bundle
Hip Replacement	\$31,000 per bundle
Cesarean Section	\$15,000 per bundle
Colonoscopy	\$2,100 per bundle
Appendectomy	\$11,000 per bundle
Cardiac Stent	\$23,000 per bundle

Let me know if you have any questions – Dominic

Quantum Email 7

From: Dominic Greene <DGreene@quantum.com>
To: You <JB007@Skyfall.com>
Sent: April 30, Year 5
Subject: Value Based Pharmacy Initiative

We've been inspired by the Value Based Pharmacy Initiative launched by Green Shield Canada and are exploring the possibility of implementing a similar arrangement for our pharmacy network. We're still working through the details, but our current vision is to assign a star rating to each pharmacy based on medication-use quality measures (to be determined). See below for more details on our proposed methodology.

Star Rating Methodology

For each medication-use quality measure for each pharmacy, we intend to assign a star rating based on a table of thresholds. Here's a sample table:

Measure	1 Star	2 Star	3 Star	4 Star	5 Star	Weight
Measure #1	< 15%	15%-40%	40%-65%	65%-90%	> 90%	Single
Measure #2	< 10%	10%-30%	30%-70%	70%-95%	> 95%	Double
Measure #3	< 20%	20%-40%	40%-60%	60%-80%	> 80%	Single

Once each measure's star rating is determined for a pharmacy, the pharmacy's overall star rating would be a weighted-average based on the "Weight" provided in the table above. I think an example may be helpful:

Measure #1 = 55%
Measure #2 = 85%
Measure #3 = 90%

The star rating for each measure would be:

Measure #1 = 3 stars
Measure #2 = 4 stars (double-weighted)
Measure #3 = 5 stars

The pharmacy's overall star rating would be a weighted-average: $\frac{3+4+4+5}{1+2+1} = 4.0$

Our opinion is that pharmacies with 4.5 to 5.0 stars would be classified as "high performing".

Make sense? Thoughts?

-Dominic

Royale Health & Life Insurance Company (Royale Health)

Large Group Products/Administrative Services Only

Royale Health offers coverage options for large group employers, including fully insured options and administrative services only (ASO) options. Health coverage plan options offered by Royale Health include medical and prescription plans, which are marketed primarily through agents and brokers. Royale Health has been successful in establishing its own preferred provider networks in the Midwestern states and has the second largest market share in the large group market of the Midwest Region. The medical plan portfolio includes PPO plans and qualified high deductible health plans (HDHP), which can be combined with a Health Savings Account (HSA). Royale Health also administers Health Reimbursement Arrangements (HRA) offered by employers. Royale Health’s Board is considering a proposition for incorporating a managed care business division that can leverage its fast growing provider networks to offer competitively priced HMO, POS, and PPO plans.

Royale Health witnessed material enrollment gains in the HDHP/HSA market in Year 4, increasing from 42% of its total enrollment in Year 3 to 61% in Year 4. They are currently analyzing if its current pricing model needs to be recalibrated to reflect induced demand utilization factors that are closer to what their experience shows.

Rates for large groups are experience rated on either a prospective or retrospective basis. Royale Health’s underwriting department will, at its discretion, consider retrospective experience rating for groups with more than 2,000 enrolled enrollees.

For its self-funded groups, Royale Health also provides stop loss coverage as an option for these groups to mitigate their risks. Groups can choose between specific and aggregate stop loss or, most commonly, choose a combination of both.

The manual rates (claim costs) PMPM for large groups are provided in Exhibit 2. The manual rate adjustment factors include industry factors, demographic factors (based on age and gender), and HSA/HRA deductible funding factors (Exhibit 4). The HSA/HRA deductible funding factor accounts for the anticipated increase in utilization of services due to “first dollar” coverage provided when an employer group funds a portion of the plan deductible.

Each group is charged a pooling charge of 8.5% for large claims exceeding an attachment point of \$100,000. The calendar year trend factors used to project historical experience of the group to the proposed rating period are shown in Exhibit 3.

Non-claim expenses used in development of premium, expressed as a percent of premium, follow:

Exhibit 1 – Non-Claim Expenses (Year 5)	
General Administration	7.2%
Profit Margin	3.0%
Premium Tax	1.8%
ACA Health Insurer Tax	2.0%
Broker Load	1.5%

Exhibit 2 – Manual Claim Costs PMPM (Q1 Year 5)		
Plan	Product Type	Manual Rate
PPO500	PPO	\$399.50
PPO1000	PPO	\$370.15
PPO2000	PPO	\$320.20
HDHP2500	HDHP	\$260.25
HDHP3000	HDHP	\$238.50
HDHP3500	HDHP	\$215.20

Exhibit 3 – Calendar Year Trend Factors		
Calendar Year	Allowed Medical Trend	Allowed Pharmacy Trend
Year 3	10.90%	4.50%
Year 4	6.70%	8.10%
Year 5+	5.50%	9.20%

Exhibit 4 – HSA/HRA Deductible: Employer Funding Adjustment Factors		
Single Deductible	25%-75% Funding	76%-100% Funding
\$2,000	1.30%	2.70%
\$2,250	1.40%	2.80%
\$2,500	1.50%	2.90%
\$2,750	1.80%	3.60%
\$3,000	2.20%	4.40%
\$3,250	2.60%	5.20%
\$3,500	3.10%	5.90%
\$4,000	3.10%	5.90%

****Royale Health Email 1****

From: Le Chiffre <lechiffre@RoyaleHealth.com>
To: You <JB007@Skyfall.com>
Sent: April 9, Year 5
Subject: Provider Contract

We are actively working with one of our biggest providers in the area, Lynd Hospital System, to renew our reimbursement arrangements with them. There have been a lot of changes to the current contract. I would like your review. I have attached the proposed provider contract for the Lynd Hospital System.

We are also working with Montenegro Hospital, but their contract is not as complex. I will attach it as well.

Thanks,
Le Chiffre

Lynd Hospital System Contract – Effective 1/1/Year 5 to 12/31/Year 7

This Contract is between C. Royale Health & Life Insurance Company (Royale Health) and Lynd Hospital System (Lynd Hospital). The effective dates of this contract are January 1, Year 5 – December 31, Year 7. Below are the details of the reimbursement arrangements between the two parties.

Inpatient Services

Acute Inpatient Per Diem Rates

<i>Acute Inpatient Services</i>	<i>Per Diem Rate Effective 1/1/Year 5</i>	<i>Per Diem Rate Effective 1/1/Year 6</i>	<i>Per Diem Rate Effective 1/1/Year 7</i>
<i>Medical/Surgical/Pediatrics</i>	\$5,000	\$5,250	\$5,600
<i>ICU/CCU</i>	\$6,000	\$6,360	\$6,650
<i>NICU – Level I</i>	\$1,000	\$1,100	\$1,150
<i>NICU – Level II</i>	\$3,000	\$3,100	\$3,200
<i>NICU – Level III</i>	\$5,000	\$5,000	\$5,000
<i>NICU – Level IV</i>	\$6,000	\$6,150	\$6,200

Acute Inpatient Case Rates

<i>Acute Inpatient Services</i>	<i>Covered Days</i>	<i>Case Rates</i>			<i>Per Diem in excess of Covered Days</i>		
		<i>Effective 1/1/Year 5</i>	<i>Effective 1/1/Year 6</i>	<i>Effective 1/1/Year 7</i>	<i>Effective 1/1/Year 5</i>	<i>Effective 1/1/Year 6</i>	<i>Effective 1/1/Year 7</i>
<i>Maternity – Normal Delivery</i>	3	\$8,000	\$8,100	\$8,300	\$2,600	\$2,700	\$2,800
<i>Maternity – C-Section</i>	5	\$12,000	\$12,200	\$12,400	\$2,400	\$2,500	\$2,500
<i>Coronary Surgery</i>	10	\$60,000	\$61,200	\$62,350	\$6,000	\$6,100	\$6,200
<i>Bariatric Surgery</i>	4	\$24,000	\$24,700	\$25,700	\$6,000	\$6,100	\$6,200
<i>Kidney Transplants</i>	<i>Entire Stay</i>	\$100,000	\$102,500	\$107,000	N/A	N/A	N/A

For Acute Inpatient Services that exceed the number of Covered Days as noted in the chart above, Royal Health shall pay Lynd Hospital at the applicable Per Diem Rate for all days that exceed the Covered Days.

Stop Loss Coverage – Inpatient Services

This Stop Loss Coverage is only applicable to services that are paid outside of the Case Rate section above. If Billed Charges for Acute Inpatient Services during a single admission exceed the Attachment Level (as defined below), Royal Health shall pay Lynd Hospital as follows:

1. For Inpatient Services provided up to and including the date the Attachment Level is reached, Royale Health shall pay Lynd Hospital at the applicable Per Diem Rate and
2. Royale Health shall pay Lynd Hospital at the rate equal to Billed Charges multiplied by the Stop Loss Percentage, for all Billed Charges provided during the admission that exceed the Attachment Level. Such payment shall be in lieu of the Per Diem Rate otherwise payable to Lynd Hospital.
3. For purposes of this Stop Loss payment provision, the “Attachment Level” and “Stop Loss Percentage” shall be the amounts set forth in the table below:

<i>Effective Date</i>	<i>Attachment Level</i>	<i>Stop Loss Percentage</i>
<i>1/1/Year 5</i>	\$250,000	60%
<i>1/1/Year 6</i>	\$275,000	60%
<i>1/1/Year 7</i>	\$300,000	60%

Outpatient Services

Outpatient Surgical Case Rates

Outpatient Services	Case Rate Effective 1/1/Year 5	Case Rate Effective 1/1/Year 6	Case Rate Effective 1/1/Year 7
Cardiac Catheterization	\$6,000	\$6,150	\$6,300
Lithotripsy	\$5,500	\$5,600	\$5,750
Colonoscopy	\$4,000	\$4,500	\$5,000
Tonsillectomy	\$5,400	\$5,450	\$5,450

Other Outpatient Surgical Rates

Rate Effective 1/1/Year 5	Rate Effective 1/1/Year 6	Rate Effective 1/1/Year 7
50% of Billed Charges, not to exceed \$6,000 per visit	50% of Billed Charges, not to exceed \$6,500 per visit	50% of Billed Charges, not to exceed \$7,000 per visit

Montenegro Hospital Contract – Effective 1/1/Year 5 to 12/31/Year 6

This Contract is between C. Royale Health & Life Insurance Company (Royale Health) and Montenegro Hospital (Montenegro). The effective dates of this contract are January 1, Year 5 – December 31, Year 6. Below are the details of the reimbursement arrangements between the two parties.

Inpatient Services

Acute Inpatient Per Diem Rates

<i>Acute Inpatient Services</i>	<i>Per Diem Rate Effective 1/1/Year 5</i>	<i>Per Diem Rate Effective 1/1/Year 6</i>
<i>Medical/Surgical/Pediatrics</i>	\$6,000	\$6,100
<i>ICU/CCU</i>	\$7,000	\$7,400
<i>NICU – Level I</i>	\$2,000	\$2,000
<i>NICU – Level II</i>	\$4,000	\$4,000
<i>NICU – Level III</i>	\$6,000	\$6,200
<i>NICU – Level IV</i>	\$7,000	\$7,500

Stop Loss Coverage – Inpatient Services

This Stop Loss Coverage is only applicable to services that are paid on a per diem rate. If Billed Charges for Acute Inpatient Services during a single admission exceed the Attachment Level (as defined below), Royal Health shall pay Montenegro Hospital as follows:

1. Royale Health shall pay Montenegro Hospital at the rate equal to Billed Charges multiplied by the Stop Loss Percentage for all Billed Charges provided during the admission.
2. The Stop Loss Percentage applies to the total amount of Billed Charges including both charges below and above the Attachment Level. Such payment shall be in lieu of the Per Diem Rate otherwise payable to Montenegro Hospital.

<i>Effective Date</i>	<i>Attachment Level</i>	<i>Stop Loss Percentage</i>
<i>1/1/Year 5</i>	\$150,000	50%
<i>1/1/Year 6</i>	\$175,000	50%
<i>1/1/Year 7</i>	\$200,000	50%

Outpatient Services

Outpatient Surgical Rates

<i>Rate Effective 1/1/Year 5</i>	<i>Rate Effective 1/1/Year 6</i>
<i>50% of Billed Charges, not to exceed \$9,000 per visit</i>	<i>50% of Billed Charges, not to exceed \$10,000 per visit</i>

****Royale Health Email 2****

From: Le Chiffre <lechiffre@RoyaleHealth.com>
 To: You <JB007@Skyfall.com>
 Sent: March 21, Year 5
 Subject: Medical Renewal

The renewal of Abeesee Company, one of our important clients, is due on July 1st. I have attached the past experience of its PPO500 plan for your review.

Thanks,
 Le Chiffre

	<i>Jan 1, Year 2 – Dec 31, Year 2</i>	<i>Jan 1, Year 3 – Dec 31, Year 3</i>	<i>Jan 1, Year 4 – Dec 31, Year 4</i>
Paid Premium Per Member Per Month (PMPM)	\$275	\$300	\$325
Average Number of Insured Members	4,106	4,118	4,378
Paid Premiums (in \$000)	\$13,550	\$14,825	\$17,075
Paid Claims (in \$000)	\$11,125	\$12,750	\$13,950
IBNR Balance at end of period (in \$000)	\$125	\$625	\$1,300
Pooled Premiums (in \$000)	\$1,152	\$1,260	\$1,451
Pooled Claims (in \$000)	\$275	\$550	\$625

<i>Additional information</i>	
Paid Premium PMPM from Jan 1, Year 4 to Dec 31, Year 4	\$325.00
Pooled Premium PMPM from Jan 1, Year 4 to Dec 31, Year 4	\$30.25
Pooled Premium PMPM from Jan 1, Year 5 to Dec 31, Year 5	\$33.00
Expected number of insured members for the period from Jan 1, Year 5 to Dec 31, Year 5	4,450

Goldfinger Insurance Company (GIC)

Goldfinger Insurance Company provides Medicare Advantage Plans and Part D Plans (MAPD), Medicaid, Medicare Supplement, and CHIP plans to the applicable target groups. GIC is domiciled in Fort Knox, Kentucky.

Medicare Supplement

GIC offers the standardized Medicare Supplement benefits for Plans A, B, C, D, and F but requires the use of a select network of providers. Premiums for the Medicare Supplement product are issued on an attained age basis and vary by age, plan type, geographic area, smoking status, and gender. GIC recently implemented the Medicare Supplement program in Year 2, and total membership in the Medicare Supplement program is currently only 800 members, all in Kentucky.

Skyfall provides actuarial support for GIC's Medicare supplement products and aids in pricing development, profit studies, and rate revisions, as necessary. The following is a selection from the email correspondence between Goldfinger and Skyfall regarding the emerging Medicare Supplement experience.

****Goldfinger Email 1****

From: Jill Masterson <JMasterson@goldfingeric.com>
To: You <JB007@Skyfall.com>
Sent: February 25th, Year 5
Subject: Medicare Supplement

Hello again, thank you for your help in reviewing the Year 2-Year 4 experience for our Medicare Supplement products and projecting future experience. I have attached the earned premium and incurred claims for all plans combined. This reflects experience from 1/1/Year 2 through 12/31/Year 4.

I believe you already have the monthly rates used for all plans, but I've included the smoking and area factors we are currently using. Last year, we discussed using smoking status factors that vary by age but decided to go with a simplified approach. Please note that the attached rates are Area 1 rates which make up the majority of our membership.

If you need anything else, don't hesitate to ask.

Thanks again,
Jill Masterson
Chief Financial Officer
Goldfinger Insurance Company

Enclosures:

Exhibit 1 – Goldfinger Medicare Supplement Experience: 1/1/Year 2 – 12/31/Year 4				
Calendar Year	Earned Premium	Incurred Claims	Loss Ratio	Policy Count at end of Period
Year 2	998,416	672,932	67.4%	712
Year 3	1,084,103	771,881	71.2%	768
Year 4	1,140,035	849,326	74.5%	800

Exhibit 2 - Area Factors				
Area	Factor	Year 2 Members	Year 3 Members	Year 4 Members
Area 1	1.00	465	501	517
Area 2	0.97	67	72	67
Area 3	1.02	114	122	130
Area 4	1.04	66	73	86

Exhibit 3 - Gender Factors				
Gender	Factor	Year 2 Members	Year 3 Members	Year 4 Members
Male	1.045	332	347	361
Female	0.970	380	421	439

Your Eyes and Smiles Insurance Company (Your Eyes)

Your Eyes and Smiles Insurance Company, a leading provider of dental and vision benefits, offers managed care and indemnity programs. Since inception, this private insurance company has offered innovative programs designed to control costs and provide quality vision and dental care. Your Eyes has been one of the early pioneers whose marketing methods underscored the impact of oral health on overall wellness. Subsequently, Your Eyes started adopting an accountable care approach to contract with dental providers that focus on various performance measures and has become one of the first dental carriers to earn URAC accreditation as a demonstration of its commitment to quality care. In tandem with its recent growth, Your Eyes' business strategy includes increasing its investment in mobile apps and online tools, such as cost estimator and assessment tools, which would enable its customers to engage with the company on a 24/7 basis.

Your Eyes' vision care network is comprised of independent ophthalmologists, optometrists, and retail chain locations nationwide. They cover well over 1.5 million members for vision benefits, primarily through employer-sponsored coverage.

The goal of Milos Columbo, the newly appointed CEO, is to expand its presence in the individual market. While the health insurance challenges faced by the underinsured and uninsured is rightfully grabbing national attention in recent years, Milos believes that dental health is receiving a lot less time and attention although its effects can be just as critical to overall health. Incidentally, his sister, Melina, co-authored a widely acclaimed study published in the *American Journal of Public Health*, showing positive association between oral health and heart health. With more than half of the US population lacking even basic dental insurance coverage, Milos' business goal is to push the boundaries of traditional dental care insurance using cost-effective strategies. Under his leadership, Your Eyes is in the process of revamping its product suites to better suit the individual market.

Dental plan options currently offered include DHMO and PPO product suites sold to over 2.5 million enrollees primarily in the employer group market. The DHMO plans require enrollees to select a participating (network) dentist and have no deductibles or waiting period. DHMO plan options can be tailored to meet a group's needs, ranging from a plan that has no enrollee cost sharing for Class I, II, and III services to plans that cover Class I services at no enrollee charge. The higher priced PPO plans give access to dental care both inside and outside of its networks by simply paying a discounted fee for service.

Your Eyes has two dental provider networks: a Tight network with high discount levels and limited provider participation and a Broad network with greater provider participation but average discount levels. Network providers have agreed to accept these network allowances as payment in full for Your Eyes' covered members. In addition, a 90th percentile payment mechanism is offered with no specific provider network. Exhibit 3 shows the provider discount and penetration for the PPO plans varying by the associated network option.

The cost sharing provisions for the Your Eyes’ highest selling dental PPO50 plan are outlined below:

Exhibit 1 -Dental PPO50 Plan Benefits	
<u>Deductible per Member per Benefit Year</u>	
Preferred Provider	
Class I Services	None
Class II and Class III Services	\$50
Non-Preferred Provider	
Class I Services	\$20
Class II and Class III Services	\$75
<u>Annual Maximum per Member</u>	
Annual Maximum per Member	\$1,500
<u>Waiting Period</u>	
Class I and Class II Services	None
Class III Services	12 Months

Exhibit 2 -Dental Network Member Coinsurance		
	Preferred Provider Member Coinsurance	Non-Preferred Provider Member Coinsurance
Class I	0%	20%
Class II	10%	40%
Class III	40%	70%

Exhibit 3 -Provider Discount			
Provider	Network	Discount	Penetration
Preferred	Tight	35%	40%
Preferred	Broad	20%	65%
Non-Preferred	90 th Percentile	5%	N/A

A claims analyst has provided the following claims extract for calendar Year 4 claims:

Exhibit 4 - Claims Extract					
Member	Incurred Date	Network	Provider	Procedure	Billed Charges
1	3/22/Year 4	Preferred	Tight	Oral Evaluation	80
1	11/29/Year 4	Preferred	Tight	Extraction	600
2	7/20/Year 4	Preferred	Broad	Fluoride Treatment	50
3	5/22/Year 4	Preferred	Broad	Periodontics	750
3	7/24/Year 4	Preferred	Broad	Root Canal	1000
3	10/2/Year 4	Preferred	Broad	Crown	1400
3	10/4/Year 4	Preferred	Broad	Bridges	1600
4	1/26/Year 4	Non-Preferred	90th	Fluoride Treatment	50
4	12/14/Year 4	Non-Preferred	90th	Restoration	250
5	1/12/Year 4	Preferred	Broad	Oral Surgery	800
6	4/25/Year 4	Preferred	Broad	Fluoride Treatment	50
7	3/8/Year 4	Preferred	Tight	Orthodontic Care	5000
8	7/27/Year 4	Preferred	Broad	Oral Surgery	150
8	7/27/Year 4	Preferred	Broad	Anesthesia	300
8	12/5/Year 4	Preferred	Broad	Denture Repair	1000
9	6/1/Year 4	Preferred	Broad	Onlays	1100

The claims analyst has also provided expected cost and utilization in Exhibits 5 and 6:

Exhibit 5 – Year 4 Expected Claims		
Range of Claims	Percent Insureds	Year 4 Expected Claim Cost
\$0	15.0%	\$0.00
\$0.01-\$50	25.0%	\$19.05
\$50.01 - \$150	30.0%	\$66.67
\$150.01-\$500	20.0%	\$238.10
\$500.01-\$1500	9.5%	\$761.90
>\$ 1,500.01	0.5%	\$1,904.76

Exhibit 6 – Tight Network Services		
Class	Tight Network: Year 4 Annual Services per 1,000 Members	Tight Network: Year 4 Avg Cost per Service
Class I	4,500	\$75
Class II	1,500	\$238
Class III	500	\$2,500

Your Eyes has offered pediatric dental benefits as a stand-alone-dental-plan carrier in both individual and SHOP Exchanges. Despite material investments on advertising campaigns and expansion of its network of pediatric dentists, they have not been able to gain significant market share in the pediatric dental market. The CFO envisions that an actuarially sound business strategy is needed to expand its market share from 4,500 pediatric enrollees in Year 4 to 25,000 in Year 6.

Spectre Accountable Care Organization (SACO)

Accountable Care Organization

Spectre Accountable Care Organization is a provider group that joined together to provide high quality care to their patients. SACO is comprised of several groups of primary care and specialist physicians who have a common goal to provide comprehensive, coordinated health care. The providers focus on their relationship with the patients to ensure that they have a positive experience and improved health outcomes.

SACO is participating in the Medicare Shared Savings Program (MSSP).

SACO Email 1

From: Madeleine Swann <MSwann@SACO.com>
To: You <JB007@Skyfall.com>
Sent: February 2, Year 5
Subject: Medicare Shared Savings

We are analyzing the shared savings arrangements with CMS. We have been meeting the quality performance measures to qualify and have been working to reduce costs.

In the table below, you can see what our benchmarks were over the last three years:

Exhibit 1 - Benchmarks			
	Year 3	Year 4	Year 5
Benchmarks	\$955.00	\$1,010.00	\$1,110.00

I'm not sure what other information you need, but I had Mr. Hinx pull these benchmarks. If you need anything else, don't hesitate to ask.

Thanks again,
Madeleine Swann
Chief Financial Officer
Spectre Accountable Care Organization

The Thunderball Corporation (Thunderball)

The Thunderball Corporation is a large insurance company operating in the United States and Canada. The corporate vision is to be a comprehensive provider of long term insurance products. Thunderball seeks to offer competitive products earning reasonable return for stockholders while growing at a financially sustainable rate.

Thunderball offers Group Long-Term Disability, Group Life, and Group and Individual Long-Term Care. They are also considering expanding into the Critical Illness insurance market but have hesitations given their lack of critical illness experience data.

Long-Term Disability

Thunderball has experienced steady growth in Long-Term Disability sales. Exhibit 1 lists the incidence rates by gender. Exhibits 2a and 2b list the death and recovery rates¹ assumed for males in the LTD plans with 3 month elimination period and 6 month elimination period respectively.

Exhibit 1 – Claim Incident Rate Table			
		Elimination Period = 3 Months	Elimination Period = 6 Months
Sex	Age	Claim Incident Rate (per 1,000 lives)	Claim Incident Rate (per 1,000 lives)
F	Under 30	1.0	0.5
F	30-39	1.6	1.0
F	40-49	2.5	2.1
F	50-59	3.0	2.6
F	60-64	4.0	3.7
F	65-66	5.0	4.8
M	Under 30	1.0	0.5
M	30-39	1.4	1.0
M	40-49	2.6	2.1
M	50-59	3.4	3.0
M	60-64	4.5	4.2
M	65-66	5.5	5.3

¹ Earlier durations (usually until 24 months) are typically listed more granular by month. Assume annualized rates for the sake of simplicity.

Exhibit 2a Death & Recovery – Males (3-month elimination period)									
Duration of Disablement after Elimination Period	Age at Disablement								
	22	27	32	37	42	47	52	57	62
1 st year	0.51	0.47	0.44	0.42	0.40	0.37	0.34	0.30	0.28
2 nd year	0.48	0.45	0.40	0.35	0.31	0.25	0.21	0.15	0.15
3 rd year	0.37	0.34	0.28	0.22	0.18	0.15	0.13	0.11	0.08
4 th year	0.25	0.21	0.17	0.15	0.12	0.11	0.09	0.08	0.07
5 th year	0.16	0.15	0.12	0.10	0.09	0.09	0.09	0.08	0.09
6 th year	0.09	0.08	0.07	0.06	0.06	0.06	0.06	0.05	0.06
7 th year	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.07	0.06
8 th year	0.05	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.08
9 th year	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.08
10 th year	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.08
11 th year	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.07	0.08
12 th year	0.04	0.04	0.04	0.05	0.06	0.06	0.07	0.08	0.09
13 th year	0.04	0.04	0.04	0.05	0.06	0.06	0.07	0.09	0.11
14 th year	0.04	0.04	0.04	0.05	0.06	0.06	0.07	0.09	0.13
15 th year	0.04	0.04	0.04	0.05	0.06	0.06	0.07	0.11	0.15
16 th year	0.04	0.04	0.04	0.05	0.06	0.08	0.11	0.13	0.16
17 th year	0.04	0.04	0.04	0.05	0.06	0.08	0.11	0.15	0.17
18 th year	0.04	0.04	0.04	0.05	0.06	0.09	0.11	0.16	0.19
19 th year	0.04	0.04	0.04	0.05	0.06	0.09	0.11	0.17	0.20
20 th year	0.04	0.04	0.04	0.05	0.06	0.09	0.12	0.17	0.26
21 st year	0.04	0.04	0.04	0.05	0.06	0.09	0.12	0.19	0.29
22 nd year	0.04	0.04	0.04	0.05	0.06	0.09	0.12	0.21	0.31
23 rd year	0.04	0.04	0.05	0.05	0.06	0.10	0.15	0.23	0.34
24 th year	0.04	0.04	0.05	0.05	0.06	0.12	0.16	0.25	0.35
25 th year	0.04	0.04	0.05	0.06	0.08	0.12	0.16	0.27	0.36
26 th year	0.04	0.04	0.05	0.06	0.08	0.13	0.16	0.27	0.38
27 th year	0.04	0.04	0.05	0.06	0.08	0.13	0.16	0.27	0.41
28 th year	0.05	0.05	0.06	0.09	0.11	0.19	0.23	0.25	0.42
29 th year	0.05	0.05	0.06	0.09	0.11	0.19	0.23	0.27	0.43
30 th year	0.05	0.05	0.06	0.09	0.11	0.19	0.23	0.27	0.45
31 st year	0.05	0.05	0.06	0.09	0.11	0.21	0.27	0.31	0.46
32 nd year	0.05	0.05	0.06	0.09	0.11	0.21	0.27	0.34	0.46
33 rd year	0.05	0.05	0.06	0.09	0.13	0.23	0.28	0.35	0.48
34 th year	0.07	0.07	0.08	0.10	0.13	0.25	0.31	0.36	0.50
35 th year	0.07	0.07	0.08	0.10	0.13	0.26	0.33	0.40	0.52
36 th year	0.08	0.08	0.08	0.12	0.15	0.26	0.35	0.45	0.55
37 th year	0.08	0.08	0.08	0.12	0.15	0.27	0.37	0.49	0.60
38 th year	0.08	0.08	0.08	0.12	0.19	0.27	0.40	0.55	0.65

Exhibit 2b Death & Recovery – Males (6-month elimination period)									
Duration of Disablement after Elimination Period	Age at Disablement								
	22	27	32	37	42	47	52	57	62
1 st year	0.40	0.36	0.33	0.31	0.25	0.22	0.19	0.15	0.10
2 nd year	0.37	0.34	0.29	0.24	0.20	0.14	0.10	0.08	0.08
3 rd year	0.22	0.19	0.17	0.17	0.13	0.12	0.10	0.08	0.08
4 th year	0.16	0.12	0.10	0.09	0.08	0.07	0.07	0.06	0.06
5 th year	0.14	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06
6 th year	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.06
7 th year	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.06
8 th year	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.06
9 th year	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.07
10 th year	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.07
11 th year	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.07
12 th year	0.02	0.03	0.03	0.03	0.04	0.03	0.04	0.05	0.07
13 th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.07	0.08
14 th year	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.07	0.09
15 th year	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.07	0.11
16 th year	0.02	0.02	0.02	0.03	0.04	0.05	0.08	0.10	0.12
17 th year	0.02	0.02	0.02	0.04	0.04	0.05	0.08	0.11	0.13
18 th year	0.02	0.02	0.02	0.04	0.04	0.05	0.08	0.12	0.15
19 th year	0.02	0.02	0.02	0.04	0.04	0.05	0.08	0.12	0.16
20 th year	0.02	0.02	0.02	0.04	0.04	0.05	0.12	0.17	0.22
21 st year	0.02	0.02	0.02	0.04	0.05	0.05	0.12	0.19	0.25
22 nd year	0.02	0.02	0.02	0.04	0.05	0.05	0.12	0.20	0.27
23 rd year	0.02	0.02	0.03	0.04	0.05	0.06	0.13	0.22	0.28
24 th year	0.02	0.02	0.03	0.04	0.05	0.06	0.15	0.23	0.28
25 th year	0.02	0.02	0.03	0.04	0.05	0.06	0.15	0.25	0.29
26 th year	0.02	0.02	0.03	0.05	0.06	0.06	0.15	0.25	0.31
27 th year	0.02	0.02	0.03	0.05	0.06	0.07	0.16	0.25	0.33
28 th year	0.03	0.03	0.04	0.05	0.06	0.07	0.21	0.25	0.33
29 th year	0.03	0.03	0.04	0.05	0.06	0.07	0.22	0.27	0.35
30 th year	0.03	0.03	0.04	0.05	0.06	0.08	0.22	0.27	0.35
31 st year	0.03	0.03	0.04	0.06	0.07	0.09	0.22	0.27	0.37
32 nd year	0.03	0.03	0.04	0.06	0.07	0.11	0.17	0.28	0.38
33 rd year	0.03	0.03	0.04	0.06	0.07	0.13	0.17	0.29	0.38
34 th year	0.05	0.05	0.06	0.06	0.07	0.13	0.21	0.29	0.38
35 th year	0.05	0.05	0.06	0.07	0.08	0.14	0.22	0.30	0.39
36 th year	0.06	0.06	0.06	0.07	0.09	0.14	0.23	0.30	0.40
37 th year	0.06	0.06	0.06	0.07	0.11	0.15	0.23	0.30	0.40
38 th year	0.06	0.06	0.06	0.07	0.12	0.15	0.25	0.34	0.41

Long-Term Care

Thunderball expanded into Long-Term Care (LTC). Initially, Thunderball offered only group coverage. After a few years, experience with individual coverage conversion quickly convinced management that Thunderball should also sell direct individual coverage. Today, all LTC policies are administered together whether issued through a group or directly to individuals. Thunderball offers 3 plans with different elimination periods and benefit periods with monthly premiums. The benefits and claim costs are seen below:

Exhibit 3 - Benefits		
Benefit Level	Elimination Period (Months)	Benefit Period (Years)
1	3	2
2	6	5
3	12	Lifetime

Exhibit 4 – Policy Data						
Policy #	Annualized Premium	Benefit Period	Elimination Period	Daily Benefit	Issue Year – Number of Years Before Year 1	Issue Age
1	2,136.25	2 Years	3 Months	70.00	26	58
2	4,448.89	2 Years	3 Months	90.00	25	70
3	3,923.56	Lifetime	12 Months	90.00	22	65
4	878.35	5 Years	6 Months	100.00	21	52
5	2,059.50	2 Years	3 Months	100.00	20	64
6	719.18	5 Years	6 Months	100.00	18	57
7	778.51	Lifetime	12 Months	70.00	17	57
8	4,974.12	Lifetime	12 Months	90.00	16	75
9	2,144.93	5 Years	6 Months	120.00	15	52
10	1,513.92	Lifetime	12 Months	180.00	14	45
11	1,265.04	2 Years	3 Months	120.00	13	65
12	7,760.27	2 Years	3 Months	190.00	12	82
13	5,530.56	5 Years	6 Months	120.00	11	70
14	2,703.54	Lifetime	12 Months	140.00	10	52

Exhibit 5 – Claim Costs per \$100 Daily Benefit						
Attained Age	Benefit Level 1 - Male	Benefit Level 1 - Female	Benefit Level 2 – Male	Benefit Level 2 - Female	Benefit Level 3 - Male	Benefit Level 3 - Female
<40	58.40	73.00	121.67	165.91	243.34	663.64
41	59.57	73.73	124.10	167.57	244.56	670.28
42	60.76	74.47	126.58	169.25	245.78	676.98
43	61.98	75.21	129.13	170.93	247.01	683.75
44	63.22	75.96	131.71	172.64	248.25	690.59
45	64.48	76.72	134.33	174.36	249.49	697.50
46	65.77	77.49	137.02	176.11	250.74	704.48
47	67.09	78.26	139.77	177.86	251.99	711.52
48	68.43	79.04	142.56	179.64	253.25	718.64
49	69.80	79.83	145.42	181.43	254.52	725.83
50	71.20	80.63	148.33	183.25	255.79	733.09
51	72.62	81.44	151.29	185.09	257.07	740.42
52	74.07	82.25	154.31	186.93	258.36	747.82
53	75.55	83.07	157.40	188.80	259.65	755.30
54	77.06	83.90	160.54	190.68	260.95	762.85
55	78.60	84.74	163.75	192.59	262.25	770.48
56	80.17	85.59	167.02	194.52	267.23	778.18
57	81.77	86.45	170.35	196.48	272.56	785.96
58	83.41	87.31	173.77	198.43	278.03	793.82
59	85.08	88.18	177.25	200.41	283.60	801.76
60	89.33	89.94	178.66	195.52	285.86	809.78
61	93.80	92.64	187.60	201.39	300.16	817.88
62	98.49	96.35	196.98	209.46	315.17	830.15
63	103.41	100.20	206.82	217.83	330.91	842.60
64	108.58	104.21	217.16	226.54	347.46	855.24
65	119.44	109.42	229.69	237.87	356.02	868.07
66	137.36	114.89	264.15	249.76	409.43	885.43
67	164.83	132.12	305.24	287.22	473.12	903.14
68	206.04	151.94	381.56	330.30	591.42	921.20
69	267.85	174.73	496.02	379.85	768.83	944.23
70	361.60	200.94	645.71	436.83	968.57	967.84
71	488.16	231.08	871.71	481.42	1,307.57	992.04
72	659.02	265.74	1,176.82	553.63	1,765.23	1,016.84
73	889.68	318.89	1,533.93	664.35	2,300.90	1,042.26
74	1,156.58	398.61	1,994.10	830.44	2,991.15	1,328.70
75	1,503.55	518.19	2,505.92	1,079.56	3,633.58	1,727.30
76	1,879.44	699.56	3,132.40	1,399.12	4,541.98	2,238.59
77	2,255.33	944.41	3,758.88	1,888.82	5,199.28	3,022.11
78	2,593.63	1,274.95	4,183.27	2,549.90	5,856.58	3,952.35
79	2,852.99	1,657.44	4,457.80	3,314.88	6,240.92	5,138.06
80	2,995.64	2,154.67	4,538.85	4,309.34	6,242.76	6,679.48

****Thunderball Email 1****

From: Max Largo <MLargo@Thunderball.com>
To: You <JB007@Skyfall.com>
Sent: March 3, Year 5
Subject: Long Term Care

You remember when you said that the regulators would never change how LTC plans worked? Never say never again, because that's exactly what's happening!

State regulators are accepting proposals to change the Group Long Term Care product design. We are going to propose they loosen product design regulations for group LTC.

As a reminder, the current plan we sell has the following provisions:

- Issue Age Rated
- Guaranteed Renewable
- Guaranteed Issue for active employees
- Inflation Protection
- There are no other additional benefits or optional provisions

The state regulators are concerned about some of our historical double and triple-digit rate increases. They understand why those were necessary, but they want to reduce the likelihood of future, large rate increases. They would like LTC plans to be more similar to other Supplemental Health Plans.

We'll need you to work with the regulators to address their concerns and propose some new regulations.

Thanks, and look forward to working with you!

Max Largo

Vice President of Product

Group Life

Thunderball offers group life coverage for employers to provide to their employees. Below are the monthly manual claim rates per \$1,000 of coverage.

Exhibit 6 – Monthly Manual Claim Rate per \$1,000 of coverage		
Age	Male	Female
20-25	0.61	0.32
26-30	0.78	0.35
31-35	0.87	0.45
36-40	0.98	0.63
41-45	1.39	0.90
46-50	2.16	1.25
51-55	3.64	1.95
56-60	6.41	3.46
61-65	11.65	6.80

Moonraker Energy (Moonraker)

Moonraker Energy is a large company that has a network of laboratories and offices to support energy industries. Moonraker offers a broad range of consulting engagements including strategies for improving efficiencies in manufacturing and logistics, testing, inspection, and certification of a wide variety of products.

Moonraker’s current employee census includes 11,875 full-time (working 30 hours or more) and 700 part-time employees. Exhibit 1 shows a census of the full-time employees. Moonraker plans to expand its core services to pharmaceutical and biotech industries. Moonraker is actively hiring research chemists, inspectors, and biostatisticians to expand its market reach.

Exhibit 1 – Census			
Sex	Age	# Full Time Employees	Average Annual Salary
F	<25	23	\$26,000
F	25-29	178	42,000
F	30-34	950	51,000
F	35-39	1,128	59,000
F	40-44	1,425	68,000
F	45-49	831	74,000
F	50-54	207	79,000
F	55-59	40	84,000
F	60-64	22	89,000
M	<25	47	31,000
M	25-29	237	45,000
M	30-34	1,068	56,000
M	35-39	1,425	63,500
M	40-44	1,900	71,000
M	45-49	1,425	76,000
M	50-54	593	82,000
M	55-59	356	89,000
M	60-64	20	98,000
Total		11,875	

Moonraker offers a group disability plan for all of its employees.

Exhibit 3 – Group Disability Plan Benefits		
Description	Plan 1	Plan 2
Monthly Benefit	50% of Monthly Salary	80% of Monthly Salary
Monthly Maximum Benefit	\$3,500	\$5,000
Elimination/Waiting Period	3 Months	3 Months
Cost of Living Adjustment	0%	3%
Premium Cost Sharing	100% Employer Paid	80% Employer Paid

At no additional cost, Moonraker offers a group term life insurance benefit equal to the annual salary and Accidental Death and Dismemberment benefit equal to twice the annual salary. Employees are provided the option to buy supplemental life insurance with a coverage level of 2.0, 3.0, or 4.0 times the annual salary.

Due to its statistically credible size, Moonraker's health insurance plans are 100% experience rated. Moonraker currently offers two fully-insured group health plan options to its full-time employees. Employees have the option of a PPO plan with different cost-sharing for in and out of network and a high deductible health plan (HDHP). Exhibit 6 shows the plans available to their employees.

The newly appointed Benefit Director is exploring if it is advantageous to replace the fully-insured plans with a self-insured plan and an ASO arrangement. Possible self-insured plan options include mirroring the fully insured benefit models or adapting it to meet the specific needs of employees through a customized suite of benefit and product options. As part of this discussion, the Benefit Director understands that, in order to mitigate risk, Moonraker should consider obtaining stop loss coverage if they determine to proceed with the ASO arrangement.

****Moonraker Email 1****

From: Hugo Drax <hugo@Moonraker.com>
To: You <JB007@Skyfall.com>
Sent: December 30, Year 4
Subject: FW: Large Claims

We are still thinking hard about switching to a self-insured plan, but there is so much to consider. CFO Sir Frederick Gray is highly concerned with the additional risk that an ASO arrangement brings. We reached out to Royale Health, per your recommendation, to get more information about their stop loss coverage options. See the email below for more information.

I'll be in touch soon.

Thanks ----- Hugo

From: Le Chiffre <lechiffre@RoyaleHealth.com>
To: Hugo Drax <hugo@Moonraker.com>
Sent: December 29, Year 4
Subject: Large Claims

Mr. Drax,

We have always appreciated your business with us. We are always excited to grow with our employer groups as they seek to provide better and more affordable health care options to their employees. We have pulled the following large claimant information from your recent experience. There have been 9 larger claims. This should give you a better idea about the stop loss plan design you are considering.

Exhibit 4 - Total Annual Claims	
Claimant	Total Claims
Claimant J	\$125,000
Claimant A	\$500,000
Claimant M	\$185,000
Claimant E	\$135,000
Claimant S	\$300,000
Claimant B	\$150,000
Claimant O	\$160,000
Claimant N	\$275,000
Claimant D	\$195,000

We look forward to moving things along.

Le Chiffre, Royale Health & Life Insurance Company
lechiffre@RoyaleHealth.com

****Moonraker Email 2****

From: Hugo Drax <hugo@Moonraker.com>
To: You <JB007@Skyfall.com>
Sent: January 7, Year 5
Subject: Claims Experience

Hi James,

You requested our group's claim experience. This is the paid claims data for incurred months January Year 3 through July Year 4. The paid claims have been paid through December Year 4.

Exhibit 5 - Claims Experience			
Incurred Month	Paid Claims	Members	Paid Claims PMPM
Jan-Year 3	\$7,410,000	11,875	\$624.00
Feb-Year 3	\$7,849,375	11,875	\$661.00
Mar-Year 3	\$7,540,625	11,875	\$635.00
Apr-Year 3	\$7,647,500	11,875	\$644.00
May-Year 3	\$7,386,250	11,875	\$622.00
Jun-Year 3	\$6,745,000	11,875	\$568.00
Jul-Year 3	\$7,540,625	11,875	\$635.00
Aug-Year 3	\$5,011,250	11,875	\$422.00
Sep-Year 3	\$7,101,250	11,875	\$598.00
Oct-Year 3	\$7,635,625	11,875	\$643.00
Nov-Year 3	\$6,032,500	11,875	\$508.00
Dec-Year 3	\$6,721,250	11,875	\$566.00
Jan-Year 4	\$7,288,750	12,250	\$595.00
Feb-Year 4	\$7,533,750	12,250	\$615.00
Mar-Year 4	\$6,921,250	12,250	\$565.00
Apr-Year 4	\$7,227,500	12,250	\$590.00
May-Year 4	\$6,860,000	12,250	\$560.00
Jun-Year 4	\$6,676,250	12,250	\$545.00
Jul-Year 4	\$7,043,750	12,250	\$575.00

Let me know if you have any questions.

Thanks,

Hugo
Moonraker Energy

Exhibit 6 - Medical Benefits			
	PPO		HDHP
	<i>In-Network</i>	<i>Out-of-Network</i>	<i>Benefits</i>
Annual Deductible Deductible does not apply to services denoted with *	\$500 per member or \$1,500 per family	\$500 per member or \$1,500 per family	\$3,000 per member or \$6,000 per family
Member Coinsurance	10%	30%	0%
Out-of-Pocket Limit Benefits	\$2,500 per member or \$7,500 per family	\$4,000 per member or \$12,000 per family	\$3,000 per member or \$6,000 per family
Office Visits	\$25 copay per visit	30% coinsurance	0% coinsurance after deductible
Preventative Care Services	Covered in Full *	Covered in Full *	Covered in Full *
Maternity Care Routine outpatient prenatal and postpartum visits	Covered in Full *	Covered in Full *	Covered in Full *
Chiropractic/Manipulative Therapy 10 visits per calendar year	10% coinsurance	30% coinsurance	0% coinsurance after deductible
Acupuncture 12 visits per calendar year	10% coinsurance	30% coinsurance	0% coinsurance after deductible
Emergency Care	\$150 copay + 10% coinsurance	\$150 copay + 10% coinsurance	0% coinsurance after deductible
Skilled Nursing 60 days per calendar year	10% coinsurance	30% coinsurance	0% coinsurance after deductible \$10,000 Calendar Year Maximum
Adult Vision 1 routine exam per year; annual hardware allowance	\$10 primary/ \$10 specialty copay per visit \$100 toward glasses or contact lenses*	\$10 primary/ \$10 specialty copay per visit \$100 toward glasses or contact lenses*	\$20 primary/ \$20 specialty copay per visit \$100 toward glasses or contact lenses*
Pediatric Vision 1 routine exam per year; Hardware – 1 pair of lenses and frames or contacts per year	Covered in Full *	Covered in Full *	Covered in Full *
Pediatric Dental Preventative and restorative services	Preventative services covered in full * Other services subject to dental deductible and coinsurance	Preventative services covered in full * Other services subject to dental deductible and coinsurance	Preventative services covered in full * Other services subject to dental deductible and coinsurance
Prescription Drugs Cost per 30-day supply	Filled at pharmacy: \$10 preferred generic*; 20% preferred brand* including specialty brand* Filled by mail order: \$5 preferred generic*; 15% preferred brand* including specialty brand*	Filled at pharmacy: 20% coinsurance; including specialty brand*	0% coinsurance after deductible

* Deductible does not apply to services denoted with *

For members on a family policy, both the deductible and OOP limit are satisfied at the earlier of (1) the member satisfying the individual deductible/OOP limit or (2) the entire family satisfying the family deductible/OOP limit.

Dr. No's Herbal Tea (Dr. No's)

Dr. No's Herbal Tea is a startup firm, co-founded by Dr. No and Dr. Honey. Dr. No's currently employs 45 non-union employees. Due to the increasing popularity of its organic spiced herbal tea products, Dr. No's has plans to significantly increase its employee size in the next several years to meet its growing operational and marketing needs.

Dr. No's offers a fully insured managed care health plan to its employees. Dr. No's provides all employees with a subsidy of \$170 monthly per employee towards the Year 6 health insurance premium shown below:

Exhibit 1 – Monthly Premium			
Single	EE + Spouse	EE+ Children	Family
\$351	\$705	\$452	\$857

The Year 6 census is given below:

Exhibit 2 – Census				
Sex	Age	# of Employees	Annual Salary	Family Composition
F	<25	0	N/A	N/A
F	25-29	2	28,500	Single
F	30-34	5	33,000	EE + Spouse
F	35-39	7	37,500	Family
F	40-44	3	48,400	Family
F	45-49	2	55,900	Family
F	50-54	1	66,700	Family
F	55-59	1	79,300	EE + Spouse
F	60-64	1	91,700	EE + Spouse
M	<25	1	22,000	Single
M	25-29	0	N/A	N/A
M	30-34	5	33,000	EE + Spouse
M	35-39	6	37,000	Family
M	40-44	6	46,750	Family
M	45-49	1	55,400	Family
M	50-54	2	67,600	Family
M	55-59	1	78,250	EE + Spouse
M	60-64	1	90,500	EE + Spouse
	Total	45		

Despite the employer subsidy, the co-founders are concerned by the low participation in the health plan. Company management is also evaluating strategies to control premium costs that have steadily risen in recent years. They are considering many possible alternatives, such as:

- Replacing the currently offered managed care plan option with an EPO plan with a more restricted network and lower premium,
- Self-insurance, or
- Dropping the employer sponsored health insurance and providing coverage through the SHOP Exchange.

Zorin Industries (Zorin)

Zorin Industries (Zorin) is a private equity firm that regularly acquires smaller companies. Their current portfolio of companies has employees concentrated in several different geographic areas.

Historically, Zorin has taken a hands-off approach to the benefits of its portfolio companies. They are concerned with keeping costs low and avoiding unnecessary risks. They also know they have very diverse employees in their portfolio companies and want to offer them plenty of options, although they are not concerned with the specifics of what is offered.

Zorin’s team has developed a core set of health benefits to offer to newly acquired portfolio companies:

- Zorin pays for employee only vision and dental coverage. Employees can pay more to cover spouses and/or dependents
- Zorin offers two medical plans to its employees: a PPO plan and a CDHP with HSA
- Zorin covers 80% of the premium cost for medical coverage
- The total premiums (both the company and employee’s cost) per employee per month are given as follows:

Exhibit 1 – Premium PEPM		
Coverage Tier	CDHP with HSA	PPO
Employee Only	\$300	\$400
Employee + Spouse	\$600	\$800
Employee + Child(ren)	\$400	\$600
Employee + Family	\$1,000	\$1,500

Zorin is acquiring a new company, A View to Kill Travel Agency (VTK) that offers one medical plan, a PPO.

Zorin requests a cost impact analysis for the VTK employees, evaluating both the impact of the change in out-of-pocket costs and employee contributions, the results of which are below:

Exhibit 2 – Population Impacted by Change in Employee Costs				
Annual Impact to Employee	CDHP with HSA		PPO	
	Single	Family	Single	Family
Less than -\$500	5%	5%	0%	15%
-\$500 to \$0	60%	15%	20%	10%
\$0 to \$500	20%	35%	45%	25%
More than \$500	15%	45%	35%	50%