

2/15/2019

Proposal for ARIA 2019 Meeting in San Francisco – Draft of Work in Progress

Comparing Apples to Oranges: Is it True that Medicare Administrative Expenses are Lower?

Abstract

On 9/17/2017 Bernie Sanders explained that the administrative costs for Medicare are only 4% while for private insurance it is 12-18% (one example of media coverage is at: <https://www.politifact.com/truth-o-meter/statements/2017/sep/20/bernie-s/comparing-administrative-costs-private-insurance-a/>). Since we are working with the health insurance annual statement data which is very rich with information about care services (frequency) and costs (severity) of health care, we decided to examine Sanders' assertions about expenses to pay claims by health insurers. We computed the actual average cost per insurer specializing in the Group market, the Medicare and the Medicaid markets for the period of 2002 to 2016. We checked the insurers' expense, not the Medicare expenses when insurers are not involved. Yes, the LAE and administrative expenses of insurers are high when insurers are involved in servicing a health care market. Insurers specializing in the Group or the Medicare Advantage (Medicare C) and Medicaid markets have had as low as 1.8% for Medicaid in 2002 and as high as about 3% in 2016 loss adjustment expenses (LAE) as a ratio from all expenses including hospital cost. For the ratio of average administrative costs only from all expenses, the differences in 2016 are: 9.4% for Medicaid, 12.3 for Medicare and 13.3% average for the Group Market. We know that we are comparing apples to oranges as the Governmental Medicare does not provide all the services insurers provide such as wellness programs, managed care, fraud detections and others. Proposed work: We are planning to obtain the supplemental Health care data from the NAIC to see the costs of insurers for giving different services with the outcomes. This will be compared to what the government is doing for Medicare A and B. This is the essence of fixing "statements" as the health care debate continues and result in comparing oranges to apples.

Code: Health insurance; utilization; managed care; health insurance markets; health care expenses; market segments

Comparing Apples to Oranges: Is it True that Medicare Administrative Expenses are Lower?

I. Introduction

On Sunday 9/17/2017, Chuck Todd (of NBC) interviewed Bernie Sanders on “Meet the Press” about his push for Universal care with the slogan “Medicare for All” as the key feature to his call for health care reform of our health care system. When asked how he would propose to finance his ideas, Sanders proceeded to talk about his “facts” that the administrative costs for Medicare are only 4% while for group insurance (private insurance) it is about 12-18% (link: <https://www.nbcn2ws.com/meet-the-press/video/full-sanders-single-payer-not-going-to-happen-tomorrow-1048427587675>).

This “assertion” led us to investigate using the health insurance data we obtained from the National Association of Insurance Commissioners (NAIC) for the period 2002-2016. These insurers’ annual reports are not only rich in financial data, they also provide rich information about utilizations services’ frequency and severity in the forms of encounters with providers, admission to hospitals and days in the hospitals. We do not use utilization data in this article at this stage of the working paper. However, we use the expense data as the “yard stick” to examine the accuracy of Sanders’ statement. In the next stage of this working paper, we will compare the claims frequency and severity and not just the administrative and loss adjustment expenses (LAE) which are the focus of this current research.

With the data, we were able to classify each insurer as a specialist in one of five markets for comprehensive health insurance: Group (employers’ provided), Individual, Federal employees, Medicare and Medicaid. Despite having data for insurers specializing in all of these markets and those without specialty, we narrow our focus here only to the Group, Medicare and Medicaid’s administrative and LAE information. We add the Medicaid to provide another governmental program as a benchmark. An insurer is designated as specialist if its members are 70% or more in that market specialty. This breakdown is as was used in prior literature (see, Baranoff, Sage and Witt, 1999) and is based on Transaction Costs Economics (See Williamson and Coase, 2005 and 1937 respectively).

In general, insurers provide a few services: financial intermediation, risk bearing and managed care. To provide these services and to deal with law suits, insurers incur Loss Adjustment Expenses (LAE) and administrative costs. When we examined the average LAE and administrative expenses as a ratio to all expenses, we did not find support for Sanders’ statement regarding lower expenses for the Medicare programs served by insurers – the Medicare C or Medicare Advantage¹

II. Data

¹ What is Medicare C? https://www.verywellhealth.com/what-is-medicare-part-c-2317412?utm_term=Medicare+Wellness+Program&utm_content=p1-main-1-title&utm_medium=sem-rel&utm_source=msn_s&utm_campaign=adid-ed619377-c559-4081-b43d-c1f8ebb42580-0-ab_msb_ocode-22871&ad=semD&an=msn_s&am=broad&q=Medicare+Wellness+Program&o=22871&qsrc=990&l=sem&askid=ed619377-c559-4081-b43d-c1f8ebb42580-0-ab_msb

As noted above our data is from the health insurers' annual statements provided by the NAIC for the fully insuring health insurers. The data for comprehensive health insurance represent serving about 50% of the US population in 2016.²

a. Segregating the health insurers into specialists

The health insurers data provides the number of members (insureds and their dependents) covered by each insurer in each of the five comprehensive markets: Group, Individual, Feds, Medicare and Medicaid. The expenses data is also provided in a separate exhibit for each of these markets. These rich data provided us with the information to

1. Separate the insurers into their unique specialty markets
2. Measure the average expenses per member per year for each market specialists separately.

For the number of insurers specializing in each markets, see our comprehensive Table 1. While in 2002, there were 341 insurers specializing in Group insurance as opposed to only 13 in the Medicare (Medicare Advantage is the part that is provided by insurers) and 75 insurers in Medicaid specialty, the numbers changed dramatically throughout the period. By 2016, we identified only 110 insurers specializing in the Group market (not including those servicing the self-insured employers), and 113 insurers specializing in the Medicare market and 136 in Medicaid. In this paper we do not delve into the reasons for these dramatic changes.³

b. Expense data

For these Group, Medicare and Medicaid specialty insurers, we extracted the following data per member per year:

1. Administrative expenses – expenses to put the business on the books
2. Loss adjustment expenses – these are usually expenses that include lawsuits
3. Total expenses including underwriting – all medical and ancillary expenses
4. Underwriting expenses – only ancillary expenses
5. Medical expenses – only Medical expenses including hospitals
6. Ratio of Loss Adjustment Expenses to total expenses
7. Ratio of Administrative Expenses to total expenses

² Breakdown is available for the final paper.

³ Reasons may include population aging shifts, regulatory and economic conditions changes. More explanation is available at: Baranoff, E.G.; Baranoff D, Sager T, Shi B. *What US health insurers' data show for ACA 'repealers.'* *The American Journal of Accountable Care*, 2016 September. <http://www.ajmc.com/journals/ajac/2016/2016-vol4-n3/what-us-health-insurers-data-show-for-aca-repealers/>

III. Results

Table 1-Comparing the expenses of the Market Specialists (mean for all insurers in the specialty)

	<u>GROUP DATA PER MEMBER PER YEAR</u>			<u>INSURERS' MEDICARE DATA PER MEMBER PER YEAR</u>			<u>MEDICAID DATA PER MEMBER PER YEAR</u>		
	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
year=2002									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	314	290.906	413.577	16	820.935	741.212	75	186.960	96.218
Loss adjustment expenses	314	63.998	69.699	16	136.315	263.920	75	29.603	27.044
Total expenses Inc. underwriting	314	2,256.260	1,126.750	15	5,344.920	3,687.930	75	1,710.880	625.021
Underwriting expenses	314	275.995	1,004.030	16	957.250	869.140	75	217.813	99.181
Medical expenses	314	1,980.260	1,358.300	15	4,323.860	3,046.270	75	1,493.060	582.835
Ratio of Loss Adjustment Expenses to total expenses	313	0.027	0.032	15	0.024	0.045	75	0.018	0.017
Ratio of Administrative Expenses to total expenses	313	0.138	0.146	15	0.206	0.154	75	0.115	0.060
year=2003									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	304	280.452	176.266	16	1,140.250	786.647	78	197.128	109.819
Loss adjustment expenses	304	78.380	65.944	16	94.646	152.479	78	35.813	29.496
Total expenses Inc. underwriting	304	2,410.100	860.937	16	7,073.000	3,195.900	78	1,854.010	780.746
Underwriting expenses	304	353.999	211.606	16	1,234.890	867.104	78	234.863	115.555
Medical expenses	304	2,056.100	783.760	16	5,838.110	2,553.790	78	1,619.150	719.652
Ratio of Loss Adjustment Expenses to total expenses	304	0.036	0.037	16	0.010	0.013	78	0.020	0.016
Ratio of Administrative Expenses to total expenses	304	0.130	0.114	16	0.168	0.088	78	0.114	0.080
year=2004									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	300	326.397	481.590	22	1,272.960	1,512.740	77	213.980	156.923
Loss adjustment expenses	300	104.259	118.253	22	253.625	462.951	77	45.484	42.871
Total expenses Inc. underwriting	300	2,901.270	3,525.390	22	7,666.030	2,946.050	77	1,948.290	1,126.080
Underwriting expenses	300	431.162	589.403	22	1,526.580	1,886.180	77	258.508	177.157
Medical expenses	300	2,470.110	3,092.280	22	6,139.450	2,818.830	77	1,689.780	1,015.740
Ratio of Loss Adjustment Expenses to total expenses	300	0.039	0.035	22	0.026	0.042	77	0.024	0.021
Ratio of Administrative Expenses to total expenses	300	0.125	0.097	22	0.173	0.189	77	0.121	0.100
year=2005									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	298	617.255	3,494.560	40	1,937.720	4,577.240	92	286.360	728.256

Loss adjustment expenses	298	121.485	266.965	40	513.325	1,888.840	92	48.600	41.689
Total expenses Inc. underwriting	298	3,276.880	4,183.190	39	6,207.360	2,974.250	92	2,093.240	1,289.670
Underwriting expenses	298	733.647	3,634.860	40	2,451.050	6,431.350	92	336.309	739.533
Medical expenses	298	2,543.240	2,059.530	40	4,696.630	2,852.390	92	1,756.930	1,051.970
Ratio of Loss Adjustment Expenses to total expenses	297	0.035	0.032	39	0.036	0.060	92	0.025	0.018
Ratio of Administrative Expenses to total expenses	297	0.129	0.113	39	0.220	0.186	92	0.113	0.098
year=2006									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	283	445.506	1,533.530	53	1,701.930	2,537.160	95	241.507	201.162
Loss adjustment expenses	283	97.948	76.495	53	413.340	712.843	95	57.080	49.337
Total expenses Inc. underwriting	283	3,107.970	1,897.840	52	9,193.580	3,978.350	95	2,215.180	1,567.840
Underwriting expenses	283	545.921	1,548.180	53	2,117.430	3,178.430	95	299.764	232.823
Medical expenses	283	2,562.050	989.383	52	7,437.010	3,350.710	95	1,915.410	1,361.780
Ratio of Loss Adjustment Expenses to total expenses	281	0.033	0.027	52	0.036	0.055	94	0.027	0.017
Ratio of Administrative Expenses to total expenses	281	0.125	0.101	52	0.159	0.115	94	0.124	0.112
year=2007									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	265	446.490	1,295.990	80	1,723.370	1,954.820	90	578.818	1,884.910
Loss adjustment expenses	265	110.595	71.897	80	301.090	406.635	90	78.304	105.610
Total expenses Inc. underwriting	265	3,331.580	1,821.770	80	10,241.610	4,693.050	90	2,825.730	1,961.020
Underwriting expenses	265	550.117	1,312.860	80	2,066.120	2,197.750	90	656.958	1,901.100
Medical expenses	265	2,781.460	1,118.490	79	8,001.070	3,198.380	90	2,168.770	1,125.170
Ratio of Loss Adjustment Expenses to total expenses	264	0.036	0.031	80	0.031	0.047	90	0.029	0.023
Ratio of Administrative Expenses to total expenses	264	0.118	0.096	80	0.156	0.108	90	0.129	0.155
year=2008									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	250	436.888	747.909	97	3,975.160	11,061.590	92	319.892	649.181
Loss adjustment expenses	250	110.134	84.781	97	615.376	1,520.340	92	73.886	70.912
Total expenses Inc. underwriting	250	3,562.340	1,817.470	93	11,191.720	5,383.970	92	2,815.670	2,866.000
Underwriting expenses	250	546.789	780.843	97	5,162.810	15,114.950	92	437.344	1,029.680
Medical expenses	250	3,015.550	1,314.350	90	8,624.090	3,760.530	92	2,378.330	1,905.350
Ratio of Loss Adjustment Expenses to total expenses	249	0.032	0.025	93	0.028	0.045	92	0.029	0.020
Ratio of Administrative Expenses to total expenses	249	0.114	0.068	93	0.161	0.097	92	0.103	0.051
year=2009									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	227	506.560	1,130.740	106	3,845.700	11,906.770	101	336.044	465.236
Loss adjustment expenses	227	118.942	98.298	106	570.967	1,274.340	101	108.644	266.914

Total expenses Inc. underwriting	227	3,873.480	2,003.830	100	11,788.700	5,449.180	101	3,297.940	3,714.790
Underwriting expenses	227	605.799	1,119.620	106	3,957.860	11,349.720	101	444.461	592.049
Medical expenses	227	3,267.680	1,357.830	97	9,231.940	3,255.690	101	2,853.480	3,152.600
Ratio of Loss Adjustment Expenses to total expenses	226	0.032	0.021	100	0.027	0.039	100	0.027	0.020
Ratio of Administrative Expenses to total expenses	226	0.115	0.073	100	0.142	0.080	100	0.100	0.048
year=2010									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	203	743.613	1,574.490	103	2,021.860	4,402.160	107	354.777	477.009
Loss adjustment expenses	203	189.449	375.207	103	318.392	358.173	107	116.611	217.277
Total expenses Inc. underwriting	203	5,407.800	8,045.660	100	11,437.850	4,777.250	107	3,472.560	4,059.010
Underwriting expenses	203	822.164	1,720.230	103	2,498.760	5,246.330	107	458.952	632.588
Medical expenses	203	4,585.630	6,728.440	98	9,090.940	2,639.480	107	3,013.610	3,489.400
Ratio of Loss Adjustment Expenses to total expenses	203	0.033	0.021	100	0.028	0.036	107	0.030	0.022
Ratio of Administrative Expenses to total expenses	203	0.117	0.066	100	0.123	0.060	107	0.103	0.054
year=2011									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	193	669.484	2,599.830	99	1,751.090	2,626.480	113	363.355	497.718
Loss adjustment expenses	193	157.926	491.742	99	345.555	433.605	113	116.013	190.914
Total expenses Inc. underwriting	193	5,101.840	12,232.970	96	11,356.730	4,498.530	113	3,622.180	4,110.570
Underwriting expenses	193	737.482	2,012.360	99	2,003.820	2,643.150	113	485.531	778.327
Medical expenses	193	4,364.360	10,241.030	93	9,105.200	2,752.980	113	3,136.650	3,391.290
Ratio of Loss Adjustment Expenses to total expenses	192	0.032	0.019	96	0.029	0.033	112	0.030	0.019
Ratio of Administrative Expenses to total expenses	192	0.111	0.061	96	0.131	0.119	112	0.099	0.049
year=2012									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	181	429.167	243.131	98	2,265.330	7,413.430	127	391.936	739.714
Loss adjustment expenses	181	267.585	1,848.330	98	329.932	403.509	127	124.697	249.524
Total expenses Inc. underwriting	181	4,294.410	2,602.220	94	11,423.030	4,503.350	127	3,879.990	4,802.750
Underwriting expenses	181	704.060	1,933.670	98	2,929.160	9,095.380	127	534.115	1,146.380
Medical expenses	181	3,590.350	1,527.170	92	9,106.000	2,677.990	127	3,345.880	3,762.240
Ratio of Loss Adjustment Expenses to total expenses	181	0.037	0.065	94	0.027	0.031	127	0.030	0.023
Ratio of Administrative Expenses to total expenses	181	0.114	0.088	94	0.118	0.071	127	0.094	0.047
year=2013									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	161	513.031	754.364	98	1,813.270	3,643.390	126	709.245	3,685.160
Loss adjustment expenses	161	141.468	99.288	98	366.345	616.122	126	162.727	286.622
Total expenses Inc. underwriting	161	4,162.940	1,354.820	96	11,224.730	4,730.620	126	4,511.620	5,820.090

Underwriting expenses	161	655.734	763.089	98	2,374.040	4,548.470	126	844.834	3,674.360
Medical expenses	161	3,507.200	1,181.130	96	9,098.660	2,548.090	126	3,666.790	3,441.030
Ratio of Loss Adjustment Expenses to total expenses	161	0.034	0.023	96	0.031	0.034	125	0.036	0.030
Ratio of Administrative Expenses to total expenses	161	0.126	0.119	96	0.110	0.078	125	0.093	0.084
year=2014									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	129	1,157.970	5,261.460	107	1,247.830	943.555	137	387.634	449.009
Loss adjustment expenses	129	160.834	184.269	107	318.671	315.275	137	155.279	268.476
Total expenses Inc. underwriting	129	6,453.990	18,529.860	107	10,747.990	3,400.530	137	4,138.550	3,863.520
Underwriting expenses	129	1,362.370	5,442.760	107	1,587.310	1,015.400	137	561.597	737.613
Medical expenses	129	5,091.610	13,159.500	105	8,921.500	2,451.360	137	3,576.950	3,170.340
Ratio of Loss Adjustment Expenses to total expenses	129	0.033	0.032	107	0.030	0.026	137	0.034	0.022
Ratio of Administrative Expenses to total expenses	129	0.144	0.082	107	0.114	0.077	137	0.096	0.051
year=2015									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	113	805.770	1,594.980	114	1,444.630	1,838.150	144	407.436	363.463
Loss adjustment expenses	113	141.540	136.413	114	356.343	397.159	144	166.997	214.779
Total expenses Inc. underwriting	113	5,123.590	3,509.980	113	10,909.620	3,852.090	144	4,486.710	3,821.520
Underwriting expenses	113	1,065.430	2,233.230	114	2,179.780	3,330.540	144	563.556	477.303
Medical expenses	113	4,058.160	2,161.780	113	8,822.500	2,228.660	144	3,923.160	3,408.920
Ratio of Loss Adjustment Expenses to total expenses	113	0.029	0.018	113	0.030	0.021	144	0.035	0.020
Ratio of Administrative Expenses to total expenses	113	0.147	0.103	113	0.114	0.067	144	0.092	0.040
year=2016									
Variable	N	Mean	Std Dev	N	Mean	Std Dev	N	Mean	Std Dev
Administrative expenses	110	667.557	503.717	115	1,531.190	1,838.320	136	478.386	577.056
Loss adjustment expenses	110	155.075	100.610	115	465.895	1,218.810	136	180.240	301.141
Total expenses Inc. underwriting	110	5,434.370	6,004.240	113	11,213.380	5,073.510	136	4,945.390	4,613.230
Underwriting expenses	110	1,262.180	5,606.440	115	1,926.140	2,732.600	136	653.845	805.183
Medical expenses	110	4,172.190	1,903.970	108	8,767.130	2,448.370	136	4,291.540	3,885.460
Ratio of Loss Adjustment Expenses to total expenses	110	0.033	0.023	113	0.031	0.027	136	0.034	0.025
Ratio of Administrative Expenses to total expenses	110	0.133	0.060	113	0.123	0.074	136	0.094	0.037

As we can see from the lengthy Table 1, the trend from 2002 to 2016 is not consistent in the relationship between the specialists for the Ratio of the administrative expenses to total expenses. In 2016 the lowest expense ratios are for Medicaid insurers, followed by Medicare and Group specialists. All three specialties did not keep the differences in the averages throughout the period.

The ratio of Loss Adjustment Expenses (LAE) from all expenses are similar across specialists at 3% in 2016.

For the interested readers, it is rather illuminating to see the mean of total expenses per member per year in 2016 to be double for the aging population in Medicare (over \$11,000) than the younger members in the Group (with about \$5,500).

To be able to understand the disparity between the 4% for Medicare A and B and 12% for Medicare C, we delved into readings. It appears that there are no Wellness programs for Medicare A and B.

We are planning to obtain the supplemental data from the NAIC to see the costs of insurers for giving different services with the outcomes. This will be compared to what the government is doing for Medicare A and B – here is the crux of not comparing oranges to apples.

As we see, there is no evidence in the data to confirm Sanders' statement in the insurers' data. More details are needed about Sander's variables.

IV. Conclusion

The insurance data provides information regarding the health care usage and expenses for medical care. These expenses are separated into two known categories: Loss Adjustment Expenses (LAE) and administrative expenses. These are the expenses of doing the health insurance business as providers of financial intermediation, risk assumption and managed care. In this paper we examined whether there are differences in these expenses across insurers specializing in Group, Medicare and Medicaid markets. The motivation was the statement by Sanders that Universal Care with his model of "Medicare for All" could be funded through the savings of low administrative costs for Medicare A and B (not serviced by insurers). The core insurance data to examine this statement cannot confirm or refute the statement. More importantly, what is this that is being compared? Do the politicians see the differences? Academics looks for true data and one-to-one comparison so that policymakers can make informed decisions. The preliminary insurers' results we show in this focused study are for the period 2002-2016 for specialized insurers. For Medicare C, regardless of economic conditions, growth in aging population or regulatory changes we could not find evidence of lower expenses for the Medicare business.

Note: References will be added