COLORADO REINSURANCE PROGRAM ANALYSIS

PREPARED FOR

COLORADO DEPARTMENT OF REGULATORY AGENCIES (DORA)

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Prepared by
Andrea Huckaba Rome, FSA, CERA, MAAA, Vice President
Michael A Brown, FSA, MAAA, Vice President
Spencer Loudon, Actuarial Analyst

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Section 1: Executive Summary

Year over year, the cost of purchasing healthcare continues to climb. The individual market has sustained large rate increases due to changes in federal regulation, changes in the risk pool, and the increasing costs of healthcare. The state of Colorado lawmakers are actively seeking solutions to the problem of high healthcare premiums.

Colorado is considering a program to reduce healthcare premiums in the individual market. Towards this end, the State of Colorado Division of Insurance (DOI), part of the Department of Regulatory Agencies (DORA), has commissioned a study to determine the cost and feasibility of such a program. The Division had a prior study and analysis of a possible reinsurance program prepared in 2017 based on information from 2014 to 2016. The Division requested an updated study to reflect data from 2017 and available 2018 information, and to extrapolate for 2019 and 2020. As part of the update, the Division requested an analysis of lowering health care premiums by lowering costs using a Medicare Reference Based pricing model for reinsurance program claims. Some of the parameters of this program have been outlined in HB19-1168, State Innovation Waiver Reinsurance Program, which was introduced to the legislature in February 2019.

A reinsurance program, established by the state, would pay for a portion of claims for high cost members in the individual ACA-compliant health insurance market. This portion of claims would be determined by setting parameters, defined below:

- **Attachment point**- A threshold, above which a member's annual total claims would be eligible for reimbursement by the reinsurance program.
- **Cap**- The maximum of a member's annual total claims that would be eligible for reimbursement.
- **Coinsurance**- The percent of a member's annual total claims (between the attachment point and the cap) paid by the reinsurance program.

The reinsurance program would pay a percentage of claims, above the attachment point and up to a cap. These claims would reduce the total claims paid by carriers in the individual market. Therefore, any reductions to claims costs due to reinsurance would reduce premiums as well.

Medicare Reference Based Pricing, simply, means that doctors, facilities, hospitals, and other healthcare providers would be paid for their services in an amount equal to what Medicare would pay, or some multiple of what Medicare would pay. The proposed reinsurance program suggests that any claims eligible for reinsurance reimbursement (in other words, any claims that, when accumulated for the member over an annual period, fall partially or wholly between the attachment point and the cap) should also be repriced to a percentage of Medicare. This repricing would reduce the cost of the reinsurance program, and still provide substantial premium relief to enrollees in the individual market. This study repriced eligible claims to 130% of Medicare, 140% of Medicare, and 150% of Medicare. (See table 3.1)

The results of the study, performed by Lewis & Ellis, Inc. (L&E), produce several options that would reduce premiums by roughly 23% or about $250M. The results also meet the three-tier criteria of reducing claims costs by a range of amounts in each rating area. (Read more about the three-tier requirement in Section 3 of this report.) Below are the reinsurance parameters and projected results of the program for select options. For all options, please see Section 3 of this report.

Table 1.1: High Level Results of Reinsurance Program with Repricing, Three Tiers				
	Option 4	**Option 5**	**Option 10**	**Option 11**
Attachment Point	$50,000	$50,000	$50,000	$50,000
Coinsurance, Three Tiers	75%/80%/100%	75%/80%/100%	70%/90%/100%	70%/90%/100%
Reinsurance Cap	$500,000	$500,000	$800,000	$800,000
Repriced to % of Medicare	130%	140%	130%	140%
Impact to Statewide Premium	-22.6%	-22.6%	-23.2%	-23.2%
Total Estimated Reduction in Premium (in $Millions)	$252.9	$252.8	$259.3	$259.3
Impact to Individual Market Enrollment	6.0%	5.9%	6.2%	6.1%
Change in Enrollment	+10,142	+10,062	+10,487	+10,400
% Covered by Pass-Through Funding (with 5% margin)	98.4%	93.3%	97.2%	92.2%

This program would be funded by repricing claims covered by reinsurance to a percentage of Medicare. After this repricing, the remaining costs would be covered from Pass-Through funding. (Read more about Pass-through funding in Section 4 of this report.)

By selecting one of the above options, and applying for a 1332 Waiver to implement the program, Colorado could reduce healthcare premiums for the individual healthcare marketplace, and provide financial relief to Coloradans who participate in this marketplace.

Section 2: Methodology

2.1 Data Used

For this study, the following data sources were used:

- Individual Market EDGE premium and enrollment data, provided by CO insurance carriers
- Individual Market EDGE risk adjustment data, provided by CO insurance carriers
- Individual Market claims and demographics in the CO All Payer Claims Database (APCD), provided by the Center for Improving Value in Healthcare (CIVHC)
- 2019 Individual URRT Rate Filings, provided by DORA DOI
- 2019 enrollment estimates, provided by DORA DOI
- Detail on APCD eligible members by category, provided by DORA DOI
- Other details on the Individual Market, provided by DORA DOI and/or publicly available

For more detail on how data was used and validated, please refer to Appendix A.

2.2 Repricing to Medicare

This study utilized L&E developed Medicare repricing tools to recalculate commercial claims from the CO All Payer Claims Database. These tools include an Inpatient hospital model, an Outpatient hospital model, an Ambulatory Surgical Center model, and a Fee-for-Service (FFS) model, which includes fee schedules for all Professional services. These tools were built using the guidelines available on the CMS website; parameters and fee schedules were set to 2019 levels.

Between these models, L&E was able to reprice 96% of all claims to a Medicare level. Any claims L&E was unable to reprice were included in the model with their current contractual allowed and paid amounts. Any claims performed by an out of state provider were not repriced to Medicare but were included in the model at their current contractual allowed and paid amounts. Any claims where the contractual allowed amount was lower than the Medicare amount were included at their current contractual allowed and paid amounts.

In this model, based on the mix of claims repriced (repricing only occurred for members with annual paid claims over $20,000), commercial allowed costs had the following relationship to Medicare costs:

Table 2.1: Medicare vs Commercial Claims Payment

	Commercial Allowed as % of Medicare*
Inpatient Hospital	235%
Outpatient Hospital & ASC	375%
Professional Services (Claims under $1,000)	143%
Pharmacy	100%

**This only reflects the mix of services present in the 2017 dataset repriced to Medicare. It excludes any out of state claims, and any claims where a repricing was not available. Only includes claims for members with annual claims greater than $20,000.*

The repricing models were validated using a CO portion of the 5% sample from CMS as well as Medicare data provided by CIVHC through the APCD. In addition to these two checks, individual claim repricings were reviewed at random by entering claims information into an online program that reprices to Medicare. For more details on Medicare repricing, please refer to Appendix A.

2.3 Modeling Methodology

The reinsurance program was modeled using the following methodology:

1. Identify Members with Claims Above $20,000
2. Link claims to high cost members
3. Reprice claims between Attachment point and Cap
4. Apply reinsurance to member total annual claims, with and without repricing
5. Calculate savings to total dollars with reinsurance, in total and by area-carrier. Calculate the impact of repricing.
6. Apply savings to 2020 premiums (less assumed administrative costs). Apply morbidity improvement due to lower premiums and increased enrollment. Calculate new expected premium.
7. Project 2020 enrollment, with and without reductions in premium due to reinsurance program.
8. Calculate Pass-Through funding for 2020.

For more detail, please refer to Appendix A. For detail on the pass-through funding calculation, please see Section 4.

Section 3: Results

Table 3.1: Results of Reinsurance Program with Repricing, Single Tier of Coinsurance

	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Attachment Point	$25,000	$25,000	$25,000	$50,000	$50,000	$50,000
Coinsurance	50%	50%	50%	80%	80%	80%
Reinsurance Cap	$1,000,000	$1,000,000	$1,000,000	$500,000	$500,000	$500,000
Repriced to % of Medicare	130%	140%	150%	130%	140%	150%
Impact to Statewide Premium	-19.5%	-19.4%	-19.4%	-19.3%	-19.2%	-19.2%
Total Estimated Reduction in Premium	-$218,048,517	-$217,803,715	-$217,558,584	-$215,612,408	-$215,521,476	-$215,430,863
Impact to Statewide Enrollment	6.6%	6.5%	6.3%	6.0%	6.0%	5.9%
Change in Enrollment	+11,300	+11,000	+10,800	+10,300	+10,200	+10,100
Cost of Reinsurance, after Repricing	$153,134,038	$157,374,358	$161,606,829	$125,533,482	$131,979,255	$138,394,930
Pass Through Funding, Less 5% Margin	$122,031,821	$121,706,509	$121,381,518	$122,832,189	$122,468,068	$122,105,609
% of Program Covered by Pass-Through	79.7%	77.3%	75.1%	97.8%	92.8%	88.2%

	Option 7	Option 8	Option 9	Option 10	Option 11	Option 12
Attachment Point	$20,000	$20,000	$20,000	$50,000	$50,000	$50,000
Coinsurance	50%	50%	50%	90%	90%	90%
Reinsurance Cap	$300,000	$300,000	$300,000	$800,000	$800,000	$800,000
Repriced to % of Medicare	130%	140%	150%	130%	140%	150%
Impact to Statewide Premium	-19.6%	-19.6%	-19.6%	-21.9%	-21.9%	-21.9%
Total Estimated Reduction in Premium	-$219,694,605	-$219,444,007	-$219,194,782	-$244,836,644	-$244,783,549	-$244,730,769
Impact to Statewide Enrollment	6.4%	6.3%	6.2%	6.9%	6.9%	6.8%
Change in Enrollment	+10,900	+10,700	+10,500	+11,700	+11,700	+11,600
Cost of Reinsurance, after Repricing	$154,386,598	$158,717,511	$163,010,629	$137,990,841	$146,680,366	$155,312,533
Pass Through Funding, Less 5% Margin	$122,617,344	$122,284,812	$121,954,891	$139,544,420	$139,085,194	$138,628,987
% of Program Covered by Pass-Through	79.4%	77.0%	74.8%	101.1%	94.8%	89.3%

Table 3.1 shows the parameters of reinsurance program options. It also shows the impact to statewide premiums, the impact to enrollment in the individual market, the estimated pass-through funding amount expected, and how much of the reinsurance cost will be covered with those pass-through funds. Options 4, 5, 10 and 11 are the options most likely to be covered by pass-through funding. These are results with a single coinsurance tier. See tables 3.2 through 3.5 for results with 3 tiers of coinsurance.

Please note, the Cost of Reinsurance reflects only the total dollars needed to cover statewide claims under the parameters provided. It does not include administrative costs of running and maintaining the Reinsurance program.

Also note, a 5% margin is built into the Pass-through funding development. This margin was used in the previous analysis, and conservatively accounts for possible variation in all elements that could determine pass-through funding. This margin was retained for consistency in this report.

Table 4.1 displays a best-estimate analysis. After stress testing, it was determined the results in this table may vary due to trend variation. The model is assuming a 5.6% allowed medical trend, and we tested allowed trends from 11.2% down to 2.0%. At a high level, we would expect the impact to premium to vary by +/-2.6%. The pass-through funding, as a percent of reinsurance costs after repricing could vary by +/-10.5%. Results may also vary due to large unanticipated changes in individual market plan offerings or individual market enrollment.

Table 3.2: Three Tier Results			
	Option 1	**Option 2**	**Option 3**
Attachment Point	$25,000	$25,000	$25,000
Coinsurance	50%	50%	50%
Reinsurance Cap	$1,000,000	$1,000,000	$1,000,000
Repriced to % of Medicare	130%	140%	150%
Adjusted Coinsurance for three tier compliance			
Area 1,2,3 Coinsurance	**40%**	**40%**	**40%**
Area 1, Impact to Claims	-18.2%	-18.2%	-18.1%
Area 2, Impact to Claims	-15.9%	-15.9%	-15.9%
Area 3, Impact to Claims	-17.9%	-17.9%	-17.9%
Area 1,2,3 Combined Impact to Claims	**-17.7%**	**-17.7%**	**-17.7%**
Area 4,6,7,8 Coinsurance	**50%**	**50%**	**50%**
Area 4, Impact to Claims	-23.7%	-23.7%	-23.7%
Area 6, Impact to Claims	-24.8%	-24.6%	-24.3%
Area 7, Impact to Claims	-22.8%	-22.8%	-22.7%
Area 8, Impact to Claims	-21.7%	-21.7%	-21.7%
Area 4,6,7,8 Combined Impact to Claims	**-23.2%**	**-23.1%**	**-23.1%**
Area 5,9 Coinsurance	**70%**	**70%**	**70%**
Area 5, Impact to Claims	-27.0%	-27.0%	-26.9%
Area 9, Impact to Claims	-35.3%	-35.3%	-35.2%
Area 5,9 Combined Impact to Claims	**-33.7%**	**-33.7%**	**-33.7%**
Adjusted Results for three tier compliance			
Impact to Statewide Premium	-22.1%	-22.1%	-22.1%
Total Estimated Reduction in Premium	$247,709,580	$247,469,403	$247,228,981
Impact to Statewide Enrollment	6.0%	5.9%	5.8%
Change in Enrollment	+10,226	+10,021	+9,816
Cost of Reinsurance, after Repricing	$142,327,827	$146,173,276	$150,012,324
Pass Through Funding, Less 5% Margin	$115,157,059	$114,857,381	$114,557,957
% of Program Covered by Pass-Through	80.9%	78.6%	76.4%

Table 3.3: Three Tier Results			
	Option 4	**Option 5**	**Option 6**
Attachment Point	$50,000	$50,000	$50,000
Coinsurance	80%	80%	80%
Reinsurance Cap	$500,000	$500,000	$500,000
Repriced to % of Medicare	130%	140%	150%
Adjusted Coinsurance for three tier compliance			
Area 1,2,3 Coinsurance	**75%**	**75%**	**75%**
Area 1, Impact to Claims	-20.4%	-20.4%	-20.4%
Area 2, Impact to Claims	-17.4%	-17.4%	-17.4%
Area 3, Impact to Claims	-20.3%	-20.3%	-20.2%
Area 1,2,3 Combined Impact to Claims	**-19.9%**	**-19.9%**	**-19.9%**
Area 4,6,7,8 Coinsurance	**80%**	**80%**	**80%**
Area 4, Impact to Claims	-24.1%	-24.1%	-24.1%
Area 6, Impact to Claims	-23.1%	-23.0%	-22.9%
Area 7, Impact to Claims	-22.8%	-22.8%	-22.8%
Area 8, Impact to Claims	-17.4%	-17.4%	-17.4%
Area 4,6,7,8 Combined Impact to Claims	**-21.5%**	**-21.5%**	**-21.5%**
Area 5,9 Coinsurance	**100%**	**100%**	**100%**
Area 5, Impact to Claims	-25.4%	-25.4%	-25.4%
Area 9, Impact to Claims	-32.7%	-32.7%	-32.7%
Area 5,9 Combined Impact to Claims	**-31.3%**	**-31.3%**	**-31.3%**
Adjusted Results for three tier compliance			
Impact to Statewide Premium	-22.6%	-22.6%	-22.6%
Total Estimated Reduction in Premium	$252,884,449	$252,803,847	$252,723,536
Impact to Statewide Enrollment	6.0%	5.9%	5.9%
Change in Enrollment	+10,142	+10,062	+9,983
Cost of Reinsurance, after Repricing	$124,450,518	$130,936,833	$137,393,665
Pass Through Funding, Less 5% Margin	$122,505,597	$122,141,058	$121,778,146
% of Program Covered by Pass-Through	98.4%	93.3%	88.6%

Table 3.4: Three Tier Results			
	Option 7	**Option 8**	**Option 9**
Attachment Point	$20,000	$20,000	$20,000
Coinsurance	50%	50%	50%
Reinsurance Cap	$300,000	$300,000	$300,000
Repriced to % of Medicare	130%	140%	150%
Adjusted Coinsurance for three tier compliance			
Area 1,2,3 Coinsurance	**40%**	**40%**	**40%**
Area 1, Impact to Claims	-17.8%	-17.7%	-17.7%
Area 2, Impact to Claims	-16.8%	-16.8%	-16.8%
Area 3, Impact to Claims	-17.9%	-17.9%	-17.9%
Area 1,2,3 Combined Impact to Claims	**-17.8%**	**-17.7%**	**-17.7%**
Area 4,6,7,8 Coinsurance	**50%**	**50%**	**50%**
Area 4, Impact to Claims	-24.7%	-24.7%	-24.6%
Area 6, Impact to Claims	-25.5%	-25.2%	-25.0%
Area 7, Impact to Claims	-23.0%	-23.0%	-23.0%
Area 8, Impact to Claims	-24.3%	-24.3%	-24.3%
Area 4,6,7,8 Combined Impact to Claims	**-24.6%**	**-24.5%**	**-24.4%**
Area 5,9 Coinsurance	**60%**	**60%**	**60%**
Area 5, Impact to Claims	-27.8%	-27.8%	-27.8%
Area 9, Impact to Claims	-34.2%	-34.2%	-34.1%
Area 5,9 Combined Impact to Claims	**-33.0%**	**-32.9%**	**-32.9%**
Adjusted Results for three tier compliance			
Impact to Statewide Premium	-22.2%	-22.2%	-22.2%
Total Estimated Reduction in Premium	$249,107,610	$248,861,523	$248,616,864
Impact to Statewide Enrollment	5.8%	5.7%	5.6%
Change in Enrollment	+9,924	+9,714	+9,506
Cost of Reinsurance, after Repricing	$143,419,308	$147,347,386	$151,241,929
Pass Through Funding, Less 5% Margin	$115,700,557	$115,394,199	$115,090,200
% of Program Covered by Pass-Through	80.7%	78.3%	76.1%

Table 3.5: Three Tier Results			
	Option 10	**Option 11**	**Option 12**
Attachment Point	$50,000	$50,000	$50,000
Coinsurance	90%	90%	90%
Reinsurance Cap	$800,000	$800,000	$800,000
Repriced to % of Medicare	130%	140%	150%
Adjusted Coinsurance for three tier compliance			
Area 1,2,3 Coinsurance	**70%**	**70%**	**70%**
Area 1, Impact to Claims	-20.4%	-20.3%	-20.3%
Area 2, Impact to Claims	-16.7%	-16.7%	-16.7%
Area 3, Impact to Claims	-20.0%	-20.0%	-20.0%
Area 1,2,3 Combined Impact to Claims	**-19.6%**	**-19.6%**	**-19.6%**
Area 4,6,7,8 Coinsurance	**90%**	**90%**	**90%**
Area 4, Impact to Claims	-26.8%	-26.8%	-26.8%
Area 6, Impact to Claims	-25.5%	-25.5%	-25.4%
Area 7, Impact to Claims	-25.7%	-25.7%	-25.7%
Area 8, Impact to Claims	-19.1%	-19.1%	-19.0%
Area 4,6,7,8 Combined Impact to Claims	**-23.9%**	**-23.8%**	**-23.8%**
Area 5,9 Coinsurance	**100%**	**100%**	**100%**
Area 5, Impact to Claims	-25.5%	-25.5%	-25.5%
Area 9, Impact to Claims	-34.4%	-34.4%	-34.4%
Area 5,9 Combined Impact to Claims	**-32.7%**	**-32.7%**	**-32.7%**
Adjusted Results for three tier compliance			
Impact to Statewide Premium	-23.2%	-23.2%	-23.1%
Total Estimated Reduction in Premium	$259,324,572	$259,257,449	$259,190,726
Impact to Statewide Enrollment	6.2%	6.1%	6.1%
Change in Enrollment	+10,487	+10,400	+10,313
Cost of Reinsurance, after Repricing	$128,081,989	$134,697,399	$141,267,522
Pass Through Funding, Less 5% Margin	$124,556,021	$124,181,931	$123,810,369
% of Program Covered by Pass-Through	97.2%	92.2%	87.6%

Tables 3.2 through 3.5 show the results with an adjustment to coinsurance to accommodate the three tiers. The three tiers, outlined in HB19-1168, State Innovation Waiver Reinsurance Program, specify the following:

- For Rating Areas 1, 2, & 3: Reduce claim costs by between 15% and 20%
- For Rating Areas 4, 6, 7, & 8: Reduce claim costs by between 20% and 25%
- For Rating Areas 5 & 9: Reduce claim costs by between 30% and 35%

To accomplish this end, the coinsurance will need to be altered, and the results change slightly. See the table for altered coinsurance parameters that produce the specified level of savings.

Please note that in aggregate, the three tiers meet the requirements specified by the bill. They may not meet the requirements area by area due to differences in the competitive environment, plan offerings, and relative risk of members in that marketplace. In particular, Area 5 is producing less savings than Area 9, although they are grouped together in the same tier. This difference may be due to fewer carriers participating in area 5, fewer members enrolled in total, and a greater percentage of catastrophic plans in this area.

Section 4: Financing the Program Recommendations

Based on the results of the model, some options indicate that the program can be fully funded through Pass-Through Funding. Pass-Through Funding assumes there will be a reduction in Premium Tax Credits paid to members in the individual market, and the difference is provided by the federal government to help fund innovative programs set up through a 1332 waiver. It is certain there will be a decrease in premium tax credits, because they are based on the second lowest cost silver plan in each rating area, and all plans in each rating area are expected to decrease.

Note that this pass-through amount is estimated on a statewide basis and is not calculated for each rating area. See table 4.1 for an example of how the pass-through funding is calculated.

Table 4.1: High Level Pass Through Calculation, Example with Option 5

		2020 Baseline	2020 Reinsurance	Calculation
(1)	Membership APTC	99,242	99,242	
(2)	Membership Non APTC	71,017	81,270	
(3)	Total ACA Individual Membership	170,259	180,511	(1) + (2)
(4)	Gross Premium PMPM APTC	$577.10	$468.72	
(5)	Gross Premium PMPM Non-APTC	$507.25	$410.49	
(6)	Gross Premium PMPM ACA	$547.96	$442.50	
(7)	Claims PMPM APTC	$496.30	$403.10	
(8)	Claims PMPM Non-APTC	$436.24	$353.02	
(9)	Claims PMPM ACA	$471.25	$380.55	
(10)	%Reinsurance Impact to Claims		-20.5%	
(11)	%Morbidity Impact to Claims		-0.4%	
(12)	**%Total Impact to Claims**		**-20.9%**	(10) + (11)
(13)	%Reduction in Claims due to Repricing		7.6%	
(14)	Reinsurance Impact to Claims PMPM		-$96.82	Base(9) * (10)
(15)	Morbidity Impact to Claims PMPM		-$1.70	Base(9) * (11)
(16)	**Total Impact on Claims PMPM**		**-$98.52**	Base(9) * (12)
(17)	Reduction in Claims due to Repricing PMPM		-$35.89	Base(9) * (13)
(18)	Reinsurance Program Costs, Less Repricing Reductions		$131,979,255	[(14) - (17)] * (3) * 12
(19)	Total Impact to Claims		$213,409,393	(16) * (3) * 12
(20)	Total % of Premium Impact		-19.2%	Reins(6) / Base(6) -1
(21)	Gross Premium PMPM APTC	$577.10	$468.72	(4)
(22)	Net Premium PMPM APTC	$118.67	$118.67	
(23)	Average PMPM APTC	$458.43	$350.05	(21) - (22)
(24)	Pass Through Funding PMPM Change		$108.38	Base(23) - Reins(23)
(25)	Total Pass Through Funding		$129,067,030	(24) * (1) * 12
(26)	Pass Through Funding as % of Reinsurance Cost		97.8%	(25) / (18)
(27)	Margin for Other Cash Flows/Market Size		-5%	
(28)	Final Federal Pass-Through %		92.8%	(26) + (27)
(29)	Final Federal Pass-Through Funding		$122,468,068	(28) * (18)

In the options where pass-through funding does not fully cover the cost of the program, additional funding sources would be considered if one of those options were chosen.

Section 5: Risk Adjustment Recommendations

The ACA risk adjustment program looks at the relative risk of all members in a marketplace, and money is transferred from carriers with low risk members to carriers with high risk members. This calculation is based on rating factors, risk factors, and the average premium in that market.

There will be some overlap where carriers are getting reimbursed for high risk members and for high cost members; these two sets of members are often, though not always, the same. As with the ACA Reinsurance program, this reinsurance program will perform a slightly different function for risk adjustment. Risk adjustment is meant to equalize the market where healthy members select one carrier and unhealthy members select the other. Reinsurance is meant to reduce premiums, and help carriers absorb shock claims that could inflate rates due to a single adverse event.

It is recommended that carriers exclude claims eligible for reinsurance from their average premium when calculating risk adjustment. This reduction will remove some of the overlap, as transfers decline with the reduced claims levels. It is also recommended that the market-wide average premium be calculated net of reinsurance.

Section 6: Limitations and Qualifications

Lewis & Ellis, Inc. was contracted to provide this analysis by Department of Regulatory Agencies, Division of Insurance in January 2019. The final report was provided on March 20, 2019.

The information provided in this report was prepared for the Individual ACA Marketplace in Colorado, using 2017 claims information, and 2017 through 2019 Enrollment and Premium information. It was prepared specifically for the purpose of supporting legislation mentioned in the report and to support a CO 1332 Wavier application, if applicable. The information may not be used for any other purpose. Other parties receiving this report should verify the data using their own experts. Third parties should not rely upon the contents of this report alone for the purposes of rating, reserving or any marketplace prediction.

The report relies on conditions in the marketplace at the time of the analysis (Q1, 2019). Any events occurring after this analysis which could have a material impact on results are not reflected in the report.

The authors of this report verify that they are Members of the American Academy of Actuaries in good standing. They are qualified to perform the analysis contained in this report and relied on Actuarial Standards of Practice to guide their work.

In preparing this analysis, limited data audits were performed, and L&E relied upon the accuracy of the data items listed above. To the extent that any of these data elements are found to be inaccurate or outdated, the analysis and resulting recommendations may be impacted accordingly.

The modeling and results are based upon generally accepted actuarial techniques applied in a consistent manner. The actuarial methods, considerations and analyses used in this study conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis of this study. While we have used our best professional judgment in all instances, estimates of ultimate losses are inherently uncertain because of the random nature of claims occurrences. They are also dependent upon future contingent events and are affected by many additional factors. L&E therefore cannot warrant actual developments will not vary from our projections.

Appendix: Methodology

Data

The primary sources of data include medical claims from The Center for Providing Value in Health Care (CIVHC), enrollment and premium from carrier 2017 and 2018 EDGE server submissions, and rate documents filed with the Colorado Division of Insurance (DOI). We requested multiple EDGE server documents from carriers, in line with the prior study performed by Milliman, but only used enrollment and premium information. Our determination for using CIVHC claims data was due to CIVHC data containing billed charges which is a key factor used in determining Medicare Inpatient Outlier Payments.

The Center for Providing Value in Health Care (CIVHC)

Claims, enrollment and provider Data were provided by the Center for Improving Value in Health Care (CIVHC). Data included claims with service dates from January 1, 2016 through October 31, 2018 and paid through November 30, 2018. CIVHC provided claims filtered on the individual market in Colorado.

Carrier EDGE server data.

L&E requested data filed by each carrier. The data request is listed below. As noted earlier in this section, L&E only pulled 2017 and 2018 enrollment and premium from the ESES file.

Market	Individual
Files / Benefit Period	Final 2017 files, most recent 2018 file when applicable
File Types	All Enrollment, Medical Claims, Pharmacy Claims, Medical Claims and Risk Adjustment Files submitted, as associated with the file identifiers below
File Identifier per CMS business rules	ESES (Enrollment Submission) ESMCS (Medical Claims Submission) ESPCS (Pharmacy Claims Submission) ESSFS (Supplemental Diagnosis File Submission) RARSD (Risk Adjustment Risk Score Detail) RACSD (Risk Adjustment Claim Selection Summary Report) RATEE (Risk Adjustment Transfer Elements Extract) ESDEE (Detail Enrollment Error Report) ESDMCE (Medical Claim Error Report for Medical Submission) ESDPCE (EDGE Server Detail Pharmacy Claim Error Report for Pharmacy Submission) ESDEE (EDGE Server Detail Enrollment Error Report for Enrollment Submission) ESDSFE (EDGE Server Detail Supplemental Diagnosis File Error Report)

Colorado Division of Insurance (DOI)

The DOI provided multiple files which were used to validate and determine projections in our model. These files include: 2019 Unified Rate Review Templates for each carrier, initial enrollment counts for 2019, risk adjustment files, and the prior Milliman study.

Methodology

Claims

Claims Data were provided by the Center for Improving Value in Health Care (CIVHC). Data included claims with service dates from January 1, 2016 through October 31, 2018 and paid through November 30, 2018. CIVHC provided claims filtered on the individual market in Colorado. We further filtered the data by removing any commercial Medicare individual market data. Our report primarily focused on claims incurred in 2017, that is those with service start dates between January 1, 2017 and December 31, 2017 and paid through November 30, 2018. We also filtered our report to include only those carriers providing coverage in the ACA individual market. That is, we limited our claims to include only Anthem, Bright Health Plan, Cigna, Denver Health, Friday Health Plans, Kaiser, and Rocky Mountain HMO. In addition, we removed any member that was listed as being enrolled in a Grandfathered plan in 2017.

We did not apply claims completion factors to the data in order to capture claims run-out. The data used has eleven months of hindsight, that is, claims incurred through December 2017 and paid through November 2018. In other words, the last service month is December 2017 while the last paid date is eleven months later, November 2018. Annual Medical and Pharmacy claims, based on a sampling of L&E commercial carriers, are on average 99.9% complete after eleven months and therefore, estimating claims without completion factors does not have a material impact on this study.

The total allowed claims reported from the CIVHC data, as filtered above, amounted to $1.459B. The total allowed claims filed by the carriers noted above amounted to $1.371B, a difference of 6.4%. The amount filed by the carrier was taken from the 2019 unified rate review template (URRT) section 1 claims which represents 2017 experience. There could be various reasons why these amounts do not reconcile such as: claims run-out (completion), URRT filed reported on various bases (with or without risk adjustment for example), or CIVHC data capturing other individual commercial medical coverage. This data uncertainty may lead to actual and expected results varying. Most actuarial estimations of future healthcare expenses will vary from actual results. Actuaries often deal with this uncertainty by developing a best estimate and a range of possible outcomes. These estimates then provide a range so that there is a higher likelihood of actual results falling within that range. This study uses this scenario method.

Claims repricing

Only claims belonging to insureds with $20,000 or more paid claims during 2017 were repriced.

CIVHC 2017 facility and professional claims were repriced using 2019 Medicare pricing models developed by L&E. The L&E model is developed using software, tables and documentation publicly available on the CMS website. L&E models are validated against a CMS 5% limited data set filtered on Colorado providers (this set is available for purchase through CMS). Pharmacy claims were not repriced.

If Medicare pricing produced a $0 allowed amount, then the allowed amount used was the actual. If the Medicare allowed amount is greater than the actual allowed amount, then the actual allowed amount is used. Providers that were out of state were not repriced and allowed amount remained unchanged.

For DRGs that were in the 2017 data set and retired by 2019, we replaced the DRG with an appropriate, yet higher cost 2019 DRG. The replaced DRGs are listed below.

2017 DRG	2019 DRG
765	783
766	788
767	796
774	805
775	806
777	760
778	761
780	761
781	811
782	833

2017 allowed claims are trended to 2019 using the average annual trend factor used in the carrier rate filings reduced by 1%, that is we assume actual trend is 1% lower and this is a margin/PAD component. In addition, we trended paid claims with 0.5% trend leveraging. The resulting trends are 5.6% allowed claims trend and 6.1% paid claims trend.

For each large claimant, we sorted their 2017 paid claims by incurred date. The next step is to cumulate these claims. For each scenario, the first claim that causes the cumulative claim total to hit the attachment point is repriced on a Medicare basis as described above. In addition, last claim that causes the cumulative total to hit the cap (minimum cap is $20K) is also priced at the Medicare rate in addition to every rate in between. Once these claims are repriced, the coinsurance is applied.

We assume the insured has reached their out of pocket maximum for repriced claims over the $20K cap. These repriced allowed and paid claims are added back into the total projected 2019 allowed and paid claims. A resulting percentage reduction in claims cost is determined from this repricing. These claims are categorized by area and carrier. The percentage impacts are applied to 2020 estimations of claims and premium.

Enrollment and 2020 projections

2018 enrollment by APTC/non-APTC, metal level, area and carrier were developed using EDGE enrollment files provided by each carrier. The DOI provided 2019 enrollment levels by APTC/non-APTC, area and carrier. 2018 distributions based on the breakouts noted were trended to 2019 enrollment in a uniform manner.

2019 enrollment and claims are trended to 2020 based on the particular scenario. The baseline scenario is illustrated below. Premiums are backed into using the expected loss ratio. The expected loss ratio assumed was taken from 2019 filed expected loss ratios. Repricing impacts to 2020 premiums and claims are then determined using the percentages developed as described in the prior section.

State of Colorado

Reinsurance Program Valuation Model

User Inputs and Assumptions

March 2019

Reinsurance Parameters

$50,000	Attachment Point, aggregate annual claims level, by member, where the reinsurance program starts paying
100%	Coinsurance, % paid by Reinsurance Program between Attachment Point and Cap
$800,000	Cap, aggregate annual claims level, by member, where the reinsurance program stops paying claims
12/ 18	Reinsurance Contract period, 12 months of incurred claims, with an additional 6 months of runout claims covered
Yes	Reprice to Medicare?
150%	Reprice to % of Medicare

Baseline Change Assumptions

5.6%	Medical Allowed Claims Trend (Carrier average, minus 1% margin)
0.5%	Leveraging to get to Medical Paid Trend
3.8%	Morbidity Change 2019 to 2020
86.0%	Assumed Individual Carrier Medical Loss Ratio
3.0%	Enrollment Change- On Exchange APTC
-4.0%	Enrollment Change- On Exchange nonAPTC
-5.0%	Enrollment Change- Off Exchange

Reinsurance Change Assumptions

-0.06%	Morbidity Change 2019 to 2020 with additional 1% of enrollment
0.00%	Enrollment Change due to 1% claims reduction- On Exchange APTC
0.16%	Enrollment Change due to 1% claims reduction- On Exchange nonAPTC
0.76%	Enrollment Change due to 1% claims reduction- Off Exchange

Pass through calculation

See Table 4.1 for detail and formulas.

2018 enrollment by APTC/non-APTC, metal level, area and carrier were developed using EDGE enrollment files provided by each carrier. The DOI provided 2019 enrollment levels by APTC/non-APTC, area and carrier.