LEWIS & ELLIS
Actuaries and Consultants

2022 Analysis for the State Reinsurance Program

MARYLAND HEALTH BENEFIT EXCHANGE

STATE OF MARYLAND

JOSH HAMMERQUIST, FSA, MAAA
Vice President & Principal

MICHAEL LIN, FSA, MAAA
Vice President & Consulting Actuary

DAVE DILLON, FSA, MAAA, MS
Senior Vice President & Principal

KEVIN RUGGEBERG, FSA, MAAA
Vice President & Consulting Actuary

JASON DOHERTY
Actuarial Associate

Submitted on:
July 29, 2021

Table of Contents

INTRODUCTION

In 2019, the state of Maryland implemented the State Reinsurance Program ("SRP") for the individual market by using an Affordable Care Act ("ACA") Section 1332 waiver ("Waiver"). The SRP provides funds to health insurers operating in the individual market to help cover the costs of high-cost members.

Pursuant to the Code of Maryland Regulations ("COMAR") Section 14.35.17.04. B[1], each year the Maryland Health Benefit Exchange ("MHBE") Board of Trustees ("Board") must set the payment parameters for the State Reinsurance Program by determining the attachment point, the coinsurance rate, and the reinsurance cap.

For 2019, 2020 and 2021, the Board set payment parameters such that the SRP would provide a payment equal to 80% of the claims incurred between $20,000 and $250,000 for each member in the individual market. The goal based on these parameters was to reduce premiums in the individual market by 30% (due to direct funding and associated morbidity improvements). Each year, the reinsurance payment parameters were reviewed, though unchanged through 2021.

The federal risk adjustment program, operated by the Department of Health & Human Services ("HHS"), also provides payments to insurers for members who are expected to have high costs based on demographic characteristics and diagnosis data.

Because both programs cover some of the same high-risk, high-cost individuals, there is potential that some insurer claims are covered by both programs. This interaction of the reinsurance and risk adjustment programs could inappropriately disrupt the individual market if adjustments are not made.[2] Therefore, pursuant to Section 14.35.17.04.B.(4), the Board can set a market-level dampening factor provided by the Maryland Insurance Commissioner, if determined necessary to mitigate the interaction of the SRP and the federal risk adjustment program.

The Board determined a dampening factor was again necessary for 2021. The Commissioner established a dampening factor of 0.76, i.e., a reduction of 24% to calculated risk adjustment transfers. The Commissioner concluded that a 24% reduction was appropriate to address the potential for interaction between the SRP and federal risk adjustment program.

[1] http://mdrules.elaws.us/comar/14.35.17.04

[2] In this report, the word "interaction" refers to payments received by a carrier for the enrolled population whose risk and claims experience would be eligible for payments under both the Federal Risk Adjustment Program and the State Reinsurance Program.

This report has been prepared for the MHBE and the Maryland Insurance Administration ("MIA") to help inform the MHBE Board of Trustees in setting the 2022 parameters for the State Reinsurance Program.

REINSURANCE PAYMENT PARAMETERS

METHODOLOGY

The steps in projecting the impact of the State Reinsurance Program's payment parameters for the 2022 individual market included:

1) **Reviewing previous reinsurance reports and estimates** – These documents were produced by L&E in 2019 and 2020 for the 2020 and 2021 reinsurance parameters and previously by the Wakely Consulting Group ("Wakely") in 2018 for the 2019 reinsurance parameters. These documents included estimated impacts to the individual ACA market for 2019 and beyond.

2) **Gathering experience data** – L&E collected updated 2020 – 2021[3] claims experience data from the insurers participating in the individual market, specifically CareFirst, Kaiser, and UnitedHealthcare ("UHC")[4].

3) **Collecting information for projection assumptions** - In addition to claims experience, L&E utilized actual 2021 plan enrollment as well as other information (e.g., benchmark premium changes, expense, and membership assumptions) provided in the 2022 rate filings. L&E also had discussions with the MHBE and MIA concerning any internal analyses performed and review of carrier information. L&E reviewed data from the Centers for Medicare and Medicaid Services ("CMS"), MHBE, MIA and carriers to calibrate and then project premiums, Advance Premium Tax Credits ("APTC"), and federal pass-through funding.

4) **Updating reinsurance model** – Having performed prior reinsurance program analyses and an additional analysis regarding young adult subsidies[5], L&E refined its projection methodology and expanded the data requests to improve the predictive ability of the model. The biggest change was projecting a scenario without reinsurance. Previously, to estimate pass-through funding, L&E compared a market scenario with reinsurance versus a market scenario where reinsurance was never in place. After reviewing CMS pass-through funding information and discussing with MHBE and MIA, the methodology

[3] Claims data is through March 2021.

[4] UHC entered the individual market in 2021 which is the primary driver of the 19% reduction in the cost of the average SLCSP in 2021 and UHC's expansion into the remaining counties is the primary driver that is expected to further reduce the average SLCSP by 12% in 2022.

[5] L&E has performed impact analyses of state funded subsidies in the individual market. The subsidies analyzed focused primarily on young adult and making healthcare coverage more affordable for these individuals.

was modified to a scenario where reinsurance was turned off. In other words, the previous non-reinsurance scenario used in estimating pass-through funding assumed there was never reinsurance. In the updated modeling, reinsurance is turned-off for a particular year. This method of estimating pass-through funding better aligns with CMS' methodology[6].

5) **Developing and projecting reinsurance payments** – Using 2019 full year[7] and 2021 partial year claims data provided by CareFirst, Kaiser, and UnitedHealthcare, L&E projected the claims with carriers' assumptions with refinement from discussions with MHBE and MIA (see Step #3 above) for claims trend, enrollment, and expenses.

6) **Modeling two American Rescue Plan (ARP) scenarios** – L&E projected two federal scenarios: 1) the higher APTCs provided by the ARP will continue through 2022 and return to pre-ARP levels beginning in 2023, consistent with the current federal regulation; and 2) the higher APTCs provided by the ARP will remain indefinitely.

[6] L&E believes that a never reinsurance scenario is more appropriate based on a review of the 1332 waiver but revised the methodology to improve the accuracy of the model.

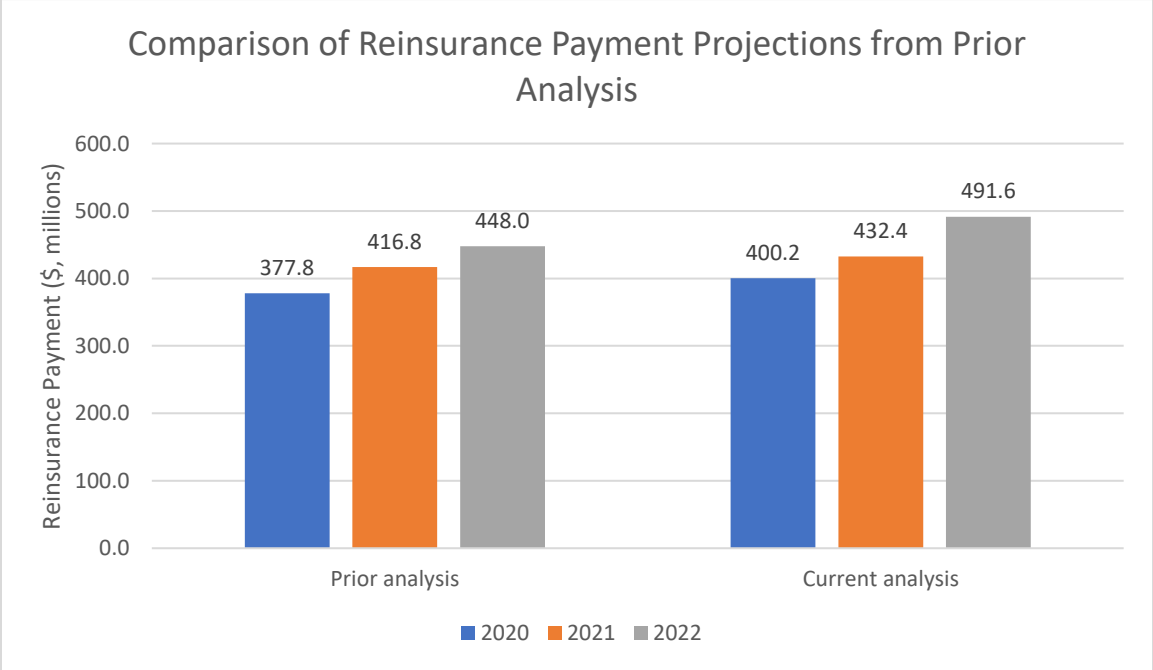
[7] The 2019 experience was used in combination with 2021 partial year experience to project 2021 full year experience and 2019 experience was used to project 2022 experience, since the 2020 experience is significantly impacted by COVID-19, which is not expected to have a material impact on claims going forward. Note 2020 full year experience is included in the modeling for finalizing 2020 figures.

RESULTS

Assuming the reinsurance program parameters remain unchanged, L&E projects Maryland's State Reinsurance Program will pay out approximately $400 million in 2020, $433 million in 2021, and $492 million in 2022.

For 2020, the actual reinsurance payment is approximately 6% higher than what was previously projected by L&E. It appears that the primary reason is that 2020 actual claims were higher than expected due to the COVID-19 pandemic.

For 2021, the expected claims level was projected forward from 2019 for the last three quarters of the year combined with 1Q 2021 claims data. For 2022, the expected claims level was projected forward from 2019, as the claims levels are expected to return to pre-pandemic levels. 2021 and 2022 include the impact of additional enrollment from the American Rescue Plan (ARP) and the Young Adult subsidies. See the following graph for a comparison of the prior analysis with the current analysis[8].



The reinsurance program helps stabilize the Individual market by reimbursing carriers for high-cost claims, which in turn, reduces premiums in the market when compared to a scenario without the reinsurance program. The expected premium reductions are driven by a claims reduction due to:

1. Reinsurance (as described); and

[8] Prior analysis refers to L&E's reinsurance modeling and report from 2020, which utilized 2019 full year and 2020 partial year claims data to project reinsurance payments for 2020 and beyond. The current analysis utilized data through 2021 partial year to project reinsurance payments 2021 and beyond. There is no change in the reinsurance parameters shown in this graph.

2. An improvement to the covered population's morbidity due to additional healthy members entering and staying in the individual market because of the lower premiums resulting from the SRP.
    - Reviewing the 2017 to 2018, 2018 to 2019, and 2019 to 2020 claims experience, most of the change in membership came from the healthiest (or, lowest claims) individuals.

Additionally, there is a premium offset due to the health insurer provider fee (Section 6-102.1 of the Maryland Insurance Code) which is 2.75% for 2019 and 1.00% for 2020 through 2023. Note, L&E's projections assume the 1% will continue indefinitely (along with the reinsurance program).

After discussion with the MHBE and MIA, it was decided the attachment point would not be changed during the current waiver period. However, starting in 2024, L&E solved for the attachment point such that the reinsurance program would reduce premiums by 30% from a scenario without reinsurance. The attachment point required would be $30,000. The modeling in the analysis assumes an attachment point would of$20,000 through 2023 and $30,000 in 2024 and beyond.

Even with keeping the attachment point at $20,000 through the end of 2023, the current funding surplus, along with projected state and federal funding in 2021-2023, is projected to be sufficient to cover the SRP throughout the term of the initial 1332 waiver (i.e., end of 2023).

Excluding the impact of the ARP, L&E projects the federal pass-through funding for 2022 to be $232 million, much lower than CMS' most recent estimate of $335 million[9] for 2021. Including the impact of the ARP, L&E expects pass-through funding to be $289 million in 2022. CMS announced the 2021 pass-through will be recalculated to account for the increased APTCs under the ARP which is discussed later in this report. Note, L&E previously expected pass-through funding to be $568 million in 2021. Discussions with MHBE and MIA as well as a detailed review of the data provided to CMS indicate the significant difference between CMS's 2021 projected pass-through funding and L&E's projections is primarily driven by: 1) L&E modeled a never reinsurance scenario whereas CMS used a turn-off reinsurance scenario; 2) L&E assumed UHC's entrance into the individual market was dependent on the SRP, while CMS did not; and 3) significantly better than expected experience (primarily from CareFirst).

Factors influencing the 2022 pass-through funding include:

- Overall benchmark market premiums are expected to drop by 12% from 2021 to 2022, due primarily by the expansion of UHC in the remaining counties. *[Decreases pass-through]*

[9] This is CMS's finalized pass-through funding as of February 25, 2021 (https://www.cms.gov/CCIIO/Programs-and-Initiatives/State-Innovation-Waivers/Section_1332_State_Innovation_Waivers-).

- CMS blends the carriers' assumption of the impact of turning off reinsurance, dependent on which carrier has the Second Lowest Cost Silver Plan ("SLCSP") in each area. CareFirst is expected to no longer have the SLCSP in any of the rating areas in 2022, so the weight given to their assumption, which is much larger than Kaiser or UHC will be 0%. *[Decreases pass-through]*
- Full year ARP-impact will be included. L&E's modeling assumes a phase in of enrollment from ARP, which provides richer APTCs to current enrollees and incentivizes uninsured to join the market. *[Increases pass-through]*

In the aggregate, the ARP impact only offsets a little more than half of the decrease in APTC because the benchmark premiums are decreasing, and CareFirst no longer has the SLCSP in any rating area.

COVID-19 Discussion

The COVID-19 global pandemic was a major consideration not fully understood at the time of the modeling used for the previous report. Maryland reopened its individual exchange enrollment due to COVID-19. Enrollment data from MHBE and MIA through June 2020 indicates there was an increase in enrollment in the individual market due to the COVID-19 and the Maryland Easy Enrollment Health Insurance Program Special Enrollment Periods ("SEP"). These two SEPs resulted in an increase of 17,500 lives on the Exchange through June 2020, with 95% enrolling from the COVID-19 SEP.

In reviewing 2020 full year claims, COVID-19 had a greater impact on reinsured claims than expected. Of CareFirst's high-cost claimants with over $20,000 in incurred claims, ~56% had a COVID-19 claim.

ARP Discussion

The ARP is expected to increase federal APTCs in 2021 and 2022 compared to pre-ARP periods. Higher federal APTC levels increase the pass-through funding, holding all else equal. L&E projects federal pass-through to be higher by $65 million to $85 million per year in years 2023 to 2025 if ARP were to continue.

To model enrollment increases due to ARP, L&E used an elasticity model to estimate the impact of the subsidies for various age groups based on a member's net premium as a percentage of income. In total, L&E estimates ~30,000 uninsured will take up coverage due to the ARP. Approximately two-thirds of the 30,000 new enrollees would have previously qualified for an APTC pre-ARP, but were not enrolled before the ARP. The 30,000 is phased in at approximately 5% in 2021 and 95% in 2022.

To understand the full-year impact of the ARP, consider the following for 2022:

- Projected total APTC without ARP: $483 million

- Projected total APTC with ARP and without any new enrollees: $587 million
- Projected total APTC with ARP and with the 30,000 new enrollees: $647 million

In other words, the ARP is expected to cost the federal government an additional $163 million in 2022, which is more than 30% higher than would be paid out without ARP. Of the $163 million, 64% is expected to be for already enrolled individuals while the other 36% is for individuals who were uninsured pre-ARP.

DAMPENING FACTOR

METHODOLOGIES

The first step in evaluating the 2022 dampening factor was to examine 2020 historical data. L&E collected the External Data Gathering Environment (EDGE) server data from the individual carriers. The EDGE data contains risk scores, diagnosis data, claims data, and premium data.

The assumption-setting process for the dampening analysis was similar to the process for the reinsurance analysis described above and included discussions with the MIA regarding their review of the current filings. In addition to the historical EDGE data, L&E utilized plan enrollment experience, information provided in the 2022 rate filings, and actual 2021 rate changes by carrier. Premiums were calculated under the expected 2022 scenario with an SRP and the hypothetical scenario in which the SRP did not exist.

L&E assumed slight changes to membership distributions in the market, consistent with the 2021 approved rate decreases and the latest estimates of the proposed 2022 rate changes. As premiums decrease, coverage becomes more attractive to healthy young individuals for whom high-priced coverage may not be economically viable without the SRP. Therefore, L&E has assumed that there will be an increase in low-morbidity members relative to 2020 due to decreasing premium rates.

L&E used the HHS risk adjustment formula for calculating risk transfer payments based on allowable rating factors and risk scores by member. There are two transfer amounts based on the two premium/enrollment scenarios referenced above. For each member, the contributions from the SRP and the HHS high-cost member program were calculated based on projected 2022 claims. The 2022 reinsurance payment parameters were based on the analysis in the Reinsurance Payment Parameters section of this report.

COMAR 14.35.17.02B11 requires that the dampening factor modify payments such that "the claims-to-premium ratio between payers and receivers under the risk adjustment is normalized." This language is not entirely clear on how to normalize these ratios.

Last year's analysis performed by L&E and the MIA used three normalization approaches. In each method, the population was divided into cohorts based on their claims and/or risk score profiles. An adjusted loss ratio for each cohort was calculated based on the following formula:

$$Adjusted\ Loss\ Ratio = \frac{Claims - Reinsurance\ Contributions - Risk\ Adjustment\ Receivables}{Earned\ Premium}$$

The 2022 dampening factor was calculated to ensure that the adjusted loss ratios between the payer and the receiver populations, as defined above, were equal.

In this report, L&E calculates the dampening factor in three (3) ways, representing different interpretations of the statute. These methods, demonstrated in the subsequent sections, are:

- A Claims Cohort method that seeks to return the loss ratios for high-claimants and low-claimants to their loss ratio in the absence of the SRP.
- A Risk Score Cohort method that seeks to return members who produce risk adjustment receivables and risk adjustment payables to their loss ratio in the absence of the SRP, and
- A Hybrid Cohort approach which seeks to return the cohort of policies that produce risk adjustment payables and do not incur reinsurance payments to their loss ratio in the absence of the SRP.

The first two methods mirror the 2021 analysis. The third represents an update to the hybrid methodology based on further analysis of the underlying market dynamics.

RESULTS – CLAIMS BASED COHORTS

In this approach L&E summarized the risk adjustment transfers, which are calculated at the member level, by grouping the members into six cohorts representing their overall claims level.

The first step in this analysis is based on the hypothetical scenario where the State Reinsurance Program is not in place for 2022. The results have been structured to replicate the reporting of the 2021 analysis:

1) Undampened Risk Adjustment, No Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
No claims incurred	388,594	$0	$211,361,061	($148,056,366)	$0	70%
Claims between 0.01 and 400	607,224	$11,652,540	$354,320,552	($225,753,262)	$0	67%
Claims between 400 and 1,200	628,817	$44,274,905	$390,991,915	($213,788,248)	$0	66%
Claims between 1,200 and 3,000	460,785	$82,233,741	$322,474,209	($123,932,403)	$0	64%
Claims between 3,000 and 20,000	405,366	$274,826,986	$309,468,081	$93,193,040	$0	59%
Claims >= 20,000	148,434	$983,449,437	$121,377,942	$618,337,239	$0	301%
Total	2,639,220	$1,396,437,609	$1,709,993,759	$0	$0	82%
Low Claims (<3000)	2,085,420	$138,161,187	$1,279,147,736	($711,530,279)	$0	66%
High Claims (>3000)	553,800	$1,258,276,422	$430,846,023	$711,530,279	$0	127%

Insurers have a significantly worse loss ratio for subscribers who had claims that qualified for the SRP. This is to be expected, as members with high claims would be expected to have disproportionately higher loss ratios.

The second step in this analysis incorporates the implementation of the SRP parameters. As expected, market wide premiums decrease significantly, which proportionally decreases risk adjustment transfers.

2) Undampened Risk Adjustment, With Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
No claims incurred	388,594	$0	$139,449,711	($97,683,166)	$0	70%
Claims between 0.01 and 400	607,224	$11,652,540	$233,770,112	($148,945,256)	$0	69%
Claims between 400 and 1,200	628,817	$44,274,905	$257,964,781	($141,051,097)	$0	72%
Claims between 1,200 and 3,000	460,785	$82,233,741	$212,758,846	($81,766,896)	$0	77%
Claims between 3,000 and 20,000	405,366	$274,826,986	$204,177,791	$61,485,982	$0	104%
Claims >= 20,000	148,434	$983,449,437	$80,081,539	$407,960,431	$473,286,004	128%
Total	2,639,220	$1,396,437,609	$1,128,202,779	$0	$473,286,004	82%
Low Claims (<3000)	2,085,420	$138,161,187	$843,943,449	($469,446,414)	$0	72%
High Claims (>3000)	553,800	$1,258,276,422	$284,259,330	$469,446,414	$473,286,004	111%

L&E notes that the application of the SRP substantially reduces the loss ratio for the highest cohort. Additionally, the "low" claimants are expected to have a 72% loss ratio while the "high" claimants have an 111% loss ratio.

To return the loss ratio differential between these groups back to the "No Reinsurance" scenario, a dampening factor of 10% would be required. This methodology is summarized below:

3) Risk Adjustment Dampened by 10%, With Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
No claims incurred	388,594	$0	$139,449,711	($87,914,849)	$0	63%
Claims between 0.01 and 400	607,224	$11,652,540	$233,770,112	($134,050,730)	$0	62%
Claims between 400 and 1,200	628,817	$44,274,905	$257,964,781	($126,945,987)	$0	66%
Claims between 1,200 and 3,000	460,785	$82,233,741	$212,758,846	($73,590,206)	$0	73%
Claims between 3,000 and 20,000	405,366	$274,826,986	$204,177,791	$55,337,384	$0	107%
Claims >= 20,000	148,434	$983,449,437	$80,081,539	$367,164,388	$473,286,004	179%
Total	2,639,220	$1,396,437,609	$1,128,202,779	$0	$473,286,004	82%
Low Claims (<3000)	2,085,420	$138,161,187	$843,943,449	($422,501,773)	$0	66%
High Claims (>3000)	553,800	$1,258,276,422	$284,259,330	$422,501,773	$473,286,004	128%

L&E believes this approach is compliant with the COMAR 14.35.17 since it "normalizes" the results back to the loss ratio relationship that would have occurred in absence of the SRP. L&E notes that the dampening factor calculated by this method has decreased for two years in a row.

RESULTS – RISK BASED COHORTS

As stated previously, COMAR 14.35.17.02B11 requires that the dampening factor modify payments such that "the claims-to-premium ratio between payers and receivers under the risk adjustment is normalized." Consistent with the 2021 analysis, this method considers the implications of grouping members by risk score rather than claim level.

The first step in calculating the dampening factor under a risk-based method is to group the data by plan-level risk score (PLRS) cohort (instead of by claims). The first table below assumes that the SRP is not in place.

1) Undampened Risk Adjustment, No Reinsurance

		Total				Loss
Risk Score Category	Member Months	Claims	Premium	RA	RI	Ratio
RS 0 to 1	2,145,119	314,547,909	1,316,605,327	($904,430,984)	$0	93%
RS 1 to 2	142,426	$77,044,689	$111,484,203	($18,976,586)	$0	86%
RS 2 to 3	105,374	$90,322,364	$82,586,875	$36,651,420	$0	65%
RS 3 to 4	64,220	$67,932,476	$47,958,360	$45,709,957	$0	46%
RS 4 to 5	22,958	$35,669,712	$18,011,047	$25,636,303	$0	56%
RS 5+	159,123	$810,920,459	$133,347,946	$815,409,889	$0	-3%
Total	2,639,220	$1,396,437,609	$1,709,993,759	$0	$0	82%
RA Payers	2,287,545	391,592,598	$1,428,089,530	($923,407,570)	$0	92%
RA Receivers	351,675	$1,004,845,011	$281,904,229	$923,407,570	$0	29%

The difference in loss ratios between risk adjustment payers (represented by risk scores 0 to 2) and receivers (risk scores 2+) is equal to 63%. That is, this is the loss ratio differential which would exist if the reinsurance program did not exist.

The next step in the risk-based analysis is to layer in the SRP without any dampening adjustments.

2) Undampened Risk Adjustment, With Reinsurance

		Total				Loss
Category	Members	Claims	Premium	RA	RI	Ratio
RS 0 to 1	2,145,119	$314,547,909	$868,656,848	($596,716,534)	$30,213,342	101%
RS 1 to 2	142,426	$77,044,689	$73,553,946	($12,520,184)	$10,187,155	108%
RS 2 to 3	105,374	$90,322,364	$54,488,352	$24,181,512	$22,743,906	80%
RS 3 to 4	64,220	$67,932,476	$31,641,493	$30,158,064	$15,324,785	71%
RS 4 to 5	22,958	$35,669,712	$11,883,151	$16,914,067	$12,381,432	54%
RS 5+	159,123	$810,920,459	$87,978,990	$537,983,076	$382,435,383	-124%
Total	2,639,220	$1,396,437,609	$1,128,202,779	$0	$473,286,004	82%
RA Payers	2,287,545	391,592,598	$942,210,793	($609,236,718)	$40,400,497	102%
RA Receivers	351,675	$1,004,845,011	$185,991,986	$609,236,718	$432,885,507	-20%

The -124% loss ratio for the highest risk score category demonstrates that carriers would be materially overcompensated for the highest risk subscribers. This clearly demonstrates a material interaction between the risk adjustment program and the SRP. The difference in loss ratios between payers and receivers has grown from approximately 63% to 122%.

To return this loss ratio difference to the targeted, pre-reinsurance 63%, a dampening factor of approximately 15% would need to be applied. This is demonstrated below:

3) Risk Adjustment Dampened by 15%, With Reinsurance

		Total				Loss
Category	Members	Claims	Premium	RA	RI	Ratio
RS 0 to 1	2,145,119	$314,547,909	$868,656,848	($507,296,145.64)	$30,213,342	91%
RS 1 to 2	142,426	$77,044,689	$73,553,946	($10,643,983.79)	$10,187,155	105%
RS 2 to 3	105,374	$90,322,364	$54,488,352	$20,557,814.44	$22,743,906	86%
RS 3 to 4	64,220	$67,932,476	$31,641,493	$25,638,755.85	$15,324,785	85%
RS 4 to 5	22,958	$35,669,712	$11,883,151	$14,379,425.34	$12,381,432	75%
RS 5+	159,123	$810,920,459	$87,978,990	$457,364,133.80	$382,435,383	-33%
Total	2,639,220	$1,396,437,609	$1,128,202,779	$0	$473,286,004	82%
RA Payers	2,287,545	391,592,598	$942,210,793	($517,940,129)	$40,400,497	92%
RA Receivers	351,675	$1,004,845,011	$185,991,986	$517,940,129	$432,885,507	29%

RESULTS – HYBRID APPROACH

Per discussions with the MIA, L&E has calculated a new approach for estimating an appropriate dampening factor for 2022. In this approach, all members in the individual market are assigned to one of 4 cohorts, based on whether they produced a positive or negative risk transfer, and whether they triggered a reinsurance payment for their insurance carrier. These cohorts are described below:

Cohort	Risk Adjustment	Reinsurance Payment
Cohort 1	Payor	No
Cohort 2	Payor	Yes
Cohort 3	Receiver	No
Cohort 4	Receiver	Yes

Otherwise, this methodology follows a similar pattern to the other methods. Cohort 1 represents those policyholders with no or few health conditions who also did not experience a catastrophic claim. These members produce a loss ratio of 86% in the scenario where there is no SRP.

1) Undampened Risk Adjustment, No Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
Cohort 1	2,208,223	$269,724,243	$1,389,262,034	($924,630,096)	$0	86%
Cohort 2	25,073	$95,220,094	$20,983,252	($10,848,087)	$0	505%
Cohort 3	282,563	$143,263,930	$199,353,783	$306,292,856	$0	-82%
Cohort 4	123,361	$888,229,342	$100,394,690	$629,185,326	$0	258%
Total	2,639,220	$1,396,437,609	$1,709,993,759	($0)	$0	82%
Total Payor	2,233,296	$364,944,337	$1,410,245,286	($935,478,182)	$0	92%
Total Receiver	405,924	$1,031,493,272	$299,748,473	$935,478,182	$0	32%

With the introduction of the reinsurance program, the lowered premium for this cohort produces an elevated loss ratio of 96%.

2) Undampened Risk Adjustment, With Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
Cohort 1	2,208,223	$269,724,243	$916,593,572	($610,043,304)	$0	96%
Cohort 2	25,073	$95,220,094	$13,844,122	($7,157,243)	$36,524,001	476%
Cohort 3	282,563	$143,263,930	$131,527,668	$202,082,873	$0	-45%
Cohort 4	123,361	$888,229,342	$66,237,416	$415,117,675	$436,762,003	55%
Total	2,639,220	$1,396,437,609	$1,128,202,779	($0)	$473,286,004	82%
Total Payor	2,233,296	$364,944,337	$930,437,694	($617,200,548)	$36,524,001	102%
Total Receiver	405,924	$1,031,493,272	$197,765,085	$617,200,548	$436,762,003	-11%

To return the Cohort 1 loss ratio to its original level, a dampening factor of 15% is necessary.

3) Risk Adjustment Dampened by 15%, With Reinsurance

		Total				Loss
Category	Member Months	Claims	Premium	RA	RI	Ratio
Cohort 1	2,208,223	$269,724,243	$916,593,572	($518,536,809)	$0	86%
Cohort 2	25,073	$95,220,094	$13,844,122	($6,083,657)	$36,524,001	468%
Cohort 3	282,563	$143,263,930	$131,527,668	$171,770,442	$0	-22%
Cohort 4	123,361	$888,229,342	$66,237,416	$352,850,024	$436,762,003	149%
Total	2,639,220	$1,396,437,609	$1,128,202,779	($0)	$473,286,004	82%
Total Payor	2,233,296	$364,944,337	$930,437,694	($524,620,466)	$36,524,001	92%
Total Receiver	405,924	$1,031,493,272	$197,765,085	$524,620,466	$436,762,003	35%

DAMPENING CONCLUSIONS

Having observed the evolution of various methods of calculating a dampening factor over the last few years, L&E believes the most stable, appropriate methodology is the Risk-Based Cohort approach. This method naturally implements the language of COMAR 14.35.17.02B11 ("payers and receivers under risk adjustment") and neutralizes specifically the impact of the state reinsurance program on those two groups. It appears that the risk cohort method has produced relatively stable dampening factors in recent years compared to other methods, in particular the hybrid method considered last year. As such, L&E recommends the Commissioner and the Board consider the risk cohort method.

Generally, the methods appear to be producing gradually decreasing dampening factors. This is unsurprising given the gradual decreases in premium which have been occurring in recent years. Because risk transfers are scaled to the average market wide premium, rate decreases indirectly produce a "dampening" effect without direct intervention.

However, L&E acknowledges that the results are highly dependent on the 2020 data used to develop these projections. 2020 was unique in many ways, including COVID-19 lockdowns and their impact on coverage and utilization patterns. For this reason, it is not entirely clear whether the decrease in dampening factor for 2022 is reflective wholly or in part of changes in the

relationship between reinsurance and risk adjustment. Considering the disruptions to the market caused by COVID-19, L&E advises a measured change in the dampening factor, producing a value between the 15% that appears correct based on 2020 data and the 24% dampening factor calculated last year.

APPENDICES

APPENDIX A: CAVEATS

L&E performed reasonability tests on the data used; however, L&E did not perform a detailed audit of the data. To the extent that the information provided was incomplete or inaccurate, the results in this report may be incomplete or inaccurate.

L&E made several assumptions in performing the analysis. Several of these assumptions are subject to material uncertainty and it is not unexpected that actual results could materially differ from the projections. Examples of uncertainty inherent in the assumptions include, but are not limited to:

- Data Limitations.
  - L&E relied on the data submitted from the insurers for significant portions of this analysis. To the extent that the data is inaccurate, the analysis will be impacted.
- Enrollment Uncertainty.
  - Beyond changes to premiums and market wide programs, consumer responses to these have inherent uncertainty. Therefore, actual enrollment could vary significantly.
- Political and Health Policy Uncertainty.
  - Future federal or state actions could dramatically change premiums and enrollment in 2022.
- Risk Adjustment Transfers.
  - Given historical enrollment changes in the Maryland market, estimates of risk adjustment transfers by cost category is highly uncertain.
- COVID-19 Pandemic
  - Claims data used in modeling is through March 2021 and are materially impacted by the COVID-19 global pandemic.

This report has been prepared for the MHBE and the MIA for discussion purposes in relation to the State Reinsurance Program analysis. Any other use may not be appropriate. L&E understands that this report may be distributed to other parties; however, any user of this report must possess a certain level of expertise in actuarial science and/or health insurance so as not to misinterpret the data presented. Any distribution of this report should be made in its entirety. Any third party with access to this report acknowledges, as a condition of receipt, that L&E does not make any representations or warranties as to the accuracy or completeness of the material. Any third party with access to these materials cannot bring suit, claim, or action against L&E, under any theory of law, related in any way to this material.

APPENDIX B: DISCLOSURES

The Actuarial Standards Board (ASB), vested by the U.S.-based actuarial organizations[10], promulgates Actuarial Standards of Practice (ASOPs) for use by actuaries when providing professional services in the United States.

Each of these organizations requires its members, through its Code of Professional Conduct[11], to observe the ASOPs of the ASB when practicing in the United States. ASOP 41 provides guidance to actuaries with respect to actuarial communications and requires certain disclosures which are contained in the following.

IDENTIFICATION OF THE RESPONSIBLE ACTUARIES

The responsible actuaries are:

- Josh Hammerquist, FSA, MAAA, Vice President & Principal
- Michael Lin, FSA, MAAA, Vice President & Consulting Actuary
- Dave Dillon, FSA, MAAA, MS, Senior Vice President & Principal
- Kevin Ruggeberg, FSA, MAAA, Vice President & Consulting Actuary

The actuaries are available to provide supplementary information and explanation.

IDENTIFICATION OF ACTUARIAL DOCUMENTS

The date of this document is July 29, 2021. The date (a.k.a. "latest information date") through which data or other information has been considered in performing this analysis is July 9, 2021.

DISCLOSURES IN ACTUARIAL REPORTS

- The contents of this report are intended for the use of the Maryland Health Benefit Exchange and the Maryland Insurance Administration. Any third party with access to this report acknowledges, as a condition of receipt, that they cannot bring suit, claim, or action against L&E, under any theory of law, related in any way to this material.
- Lewis & Ellis Inc. is financially and organizationally independent from the companies that participate in the Maryland individual market. L&E is not aware of anything that would impair or seem to impair the objectivity of the work.
- The purpose of this report is to assist the MHBE and the MIA with an analysis of the 2021 State Reinsurance Program.
- The responsible actuaries identified above are qualified as specified in the Qualification Standards of the American Academy of Actuaries.

[10] The American Academy of Actuaries (Academy), the American Society of Pension Professionals and Actuaries, the Casualty Actuarial Society, the Conoference of Consulting Actuaries, and the Society of Actuaries.
[11] These organizations adopted identical Codes of Professional Conduct effective January 1, 2001.

- Lewis & Ellis has reviewed the data provided for reasonableness but has not audited it. L&E nor the responsible actuaries assume responsibility for items that may have a material impact on the analysis. To the extent that there are material inaccuracies in, misrepresentations in, or lack of adequate disclosure by the data, the results may be accordingly affected.
- L&E is not aware of other subsequent events that may have a material effect on the findings.

ACTUARIAL FINDINGS

The actuarial findings of the report can be found in the body of this report.

METHODS, PROCEDURES, ASSUMPTIONS, AND DATA

The methods, procedures, assumptions, and data used can be found in the body of this report.

ASSUMPTIONS OR METHODS PRESCRIBED BY LAW

This report was prepared as prescribed by applicable law, statutes, regulations, and other legally binding authority.

RESPONSIBILITY FOR ASSUMPTIONS AND METHODS

The actuaries do not disclaim responsibility for material assumptions or methods.

DEVIATION FROM THE GUIDANCE OF AN ASOP

The actuaries do not believe that material deviations from the guidance set forth in an applicable ASOP have been made.