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May 26, 2020

Ms. Traci Hughes, ASA, MAAA
Lewis & Ellis, Inc.
700 Central Expressway South, Suite 550
Allen, TX 75013

Re: 2021 Vermont Exchange Rate Filing
SERFF Tracking #: MVPH-132371260

Dear Ms. Hughes:

This letter is in response to your correspondence received 05/18/20 regarding the above-mentioned rate filing. The responses to your questions are provided below.

1. Please provide detailed quantitative and qualitative support for the medical unit cost trend assumption separately for Vermont providers that are governed by the GMCB and all other providers. The support for the providers governed by GMCB should reconcile to the most recently approved budget changes (https://gmcboard.vermont.gov/sites/gmcb/files/documents/FY20%20Summary%20of%20Budget%20Submissions%20and%20Approvals.pdf) and include an explanation and support for any differences. The support for all other providers should include the data and any adjustments that were made to the data to determine the best estimate of unit cost changes.

Response: This response has been determined to be confidential and will be provided under separate cover.

2. We acknowledge the following from page 3 of the Actuarial Memorandum, "MVP analyzed historical utilization patterns for the ACA-compliant business to determine whether there has been a utilization trend pattern in the recent past. Because of the rapid membership growth in this block in the past several years, the utilization trends produced by the model were not considered reliable." Please provide the analysis of the historical utilization patterns. This analysis should include quantitative and qualitative components.

Response: MVP used the triple exponential smoothing forecasting method for analyzing historical utilization patterns and projecting them to the rating period. MVP has experienced rapid membership growth in this block of business in the recent past, which may influence the results of historical trend methodologies. To account for this, the data used in this analysis reflects only members that are currently active with MVP. The utilization data is aggregated into rolling 12-month time periods at the service category level and adjusted for age/gender based on the Milliman age/gender table.

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MVP used the (A,Ad,N) version of triple exponential smoothing for the inpatient service category and the (M,Ad,N) version for both outpatient and physician. The data inputs as well as the model outputs for the service categories can be seen on tabs "Question #2 Inpatient" , "Question #2 Outpatient" , and "Question #2 Physician" in the provided excel workbook (Support for L&E Objection #1_SERFF). Because each of these simulations produce a distribution of outcomes as opposed to a point estimate, MVP ran Monte Carlo simulations (based on the resulting distributions) to aggregate the data across service category models. MVP ran 10,000 simulations where individual trend values were picked based on the service category distributions and combined using the experience period allowed claims by service category as weights. The result of the 10,000 simulations is therefore a distribution of the total expected utilization trend over the period.

The results of the Monte Carlo simulations can be seen in tab "Question #2 Monte Carlo" in the provided excel workbook (Support for L&E Objection #1_SERFF). MVP has determined that the range of utilization trends forecasted by the model is too large to have confidence in the result.

3. Please reconcile the 11.1% of CY2018 claims that were above $100,000 with the 10.5% shown in last year's actuarial memorandum.

Response: Please see the "Question #3" tab of the attached Excel document (Support for L&E Objection #1_SERFF) for a quantitative derivation of the actual pooling charges for 2018 as of the previous filing and the current filing. The change in the pooling charge is driven by 3 major components:

1) **The Impact of Claim Run-out on new Claimants above the $100,000 Pooling Point:** With another 12 months of paid claim information, the number of Individual and Small ACA members above $100,000 in annual claims has increased from 145 members to 149, with one claimant from the prior filing having their claims reduced under the $100,000 threshold. Those 5 new claimants collectively have claims above the pooling point of $219,179.

2) **The Impact of Claim Run-out for existing Claimants above the $100,000 Pooling Point:** The 145 members reaching the pooling point from the previous filing have seen their claims restate upward by $329,639, all of which directly flow into the "Claims above $100,000" bucket.

3) **The Impact of Claim Run-out on the Claims below the $100,000 Pooling Point:** MVP's total claims for the 2018 Individual and Small ACA populations have restated downward by $576,383 from the previous filing to the current filing. However, the claims above the pooling point have increased by $548,818 (the sum of the two numbers above). Therefore, the total restatement of the claims below the pooling point is $1,125,201 downward (the total restatement less the restatement of the claims above the pooling point). This has the impact of leveraging the change in the pooling charge upwards due to the decreased denominator of the pooling charge formula.

With these 3 changes, the pooling charge for the 2018 ACA business has increased from 10.5% to 11.1% from the previous filing to the current one.

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4. Please provide quantitative and further qualitative support for the Rx trends in Exhibit 2a.

Response: MVP is provided with pharmacy trend estimates by its Pharmacy Benefit Manager, CVSHealth. These trends are run for all of MVP's Vermont fully insured membership (ACA and Large Group) and use historical utilization and unit cost data for those populations. This historical data is combined with CVSHealth estimates of changes in utilization, unit cost and generic dispensing rates to calculate their best estimate of Gross PMPM claim cost trends for 2020 and 2021. MVP also applies its best estimate of contract changes between the experience period and the rating period to the unit cost information using a trend model provided by CVSHealth. Please see the attached exhibit (CONFIDENTIAL MVP_Vermont_4Q2019_CSTM_04132020) which provides CVSHealth's best estimate of trends as of the time of the filing.

The individual cost components (unit cost and utilization by Generic/Brand/Specialty) are calculated as follows:

Generic: Unit Cost trend is represented by Generic Non-Specialty Cost/Day trend which is found in cell L46 on Page 1 (2020) and Page 2 (2021) of the attached. Generic Non-Specialty Gross Cost PMPM Trend can be found in cell J46 on Page 3 (2020) and Page 4 (2021) of the attached. Utilization is then calculated by taking Gross Cost PMPM Trend divided by the unit cost trend.

Brand: Unit Cost trend is represented by Brand Non-Specialty Cost/Day trend which is found in cell M46 on Page 1 (2020) and Page 2 (2021) of the attached. Brand Non-Specialty Gross Cost PMPM Trend can be found in cell F46 on Page 3 (2020) and Page 4 (2021) of the attached. Utilization is then calculated by taking Gross Cost PMPM Trend divided by the unit cost trend. The impact of brand drugs moving to generic is implicitly covered under the cost/day trend under this methodology. This reflects the utilization of the current drug being re-weighted from the brand bucket to the generic bucket.

Specialty: Utilization trend is represented by Specialty Utilization trend which is found in cell N47 on Page 1 (2020) and Page 2 (2021) of the attached. Specialty Gross Cost PMPM can be found in cell G47 on Page 1 (2020) and Page 2 (2021) of the attached. Specialty unit cost trend is then calculated by taking Gross Cost PMPM Trend divided by the utilization trend.

CVSHealth buckets non-Specialty drugs by the first 2 characters of the GPI and Specialty drugs using their proprietary Rx Navigator methodology. The individual contribution of these buckets to Gross Cost PMPM trend can be found in column I of Page 1 (2020) and Page 2 (2021) of the attached. The Other bucket for non-Specialty claims includes all GPI categories not explicitly listed and the other bucket for Specialty claims include all conditions not explicitly listed.

MVP uses the trend factors calculated above and applies them to the experience period cost per script and scripts per 1,000 members to compute an annual paid trend. Scripts per 1,000 is trended using the utilization trends, while the allowed cost per script and coinsurance cost per script amounts are trended using the unit cost trends. Copay per script amounts are not trended and the deductible per script amounts are trended using the paid leveraging factor.

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All of these trended items are then converted to a PMPM using the formula (projected cost per script * projected scripts per 1,000 members / 12,000) and the projected paid claims PMPM is calculated as the difference between the projected allowed claims PMPM and the sum of the cost sharing PMPM amounts. The total (24 month) paid trend (gross of rebate changes) is then calculated as the projected paid claims PMPM divided by the experience period paid claims PMPM.

The paid claims net of pharmacy rebates is calculated as the projected net paid claims PMPM divided by the experience period net paid claims PMPM.

5. Provide quantitative and qualitative support for the leveraged Rx trend.

Response: The amounts paid under the deductible by members in the experience period are converted to a per script basis. This per script amount is then trended and converted to a projected PMPM as explained in the response to Question #4. The trend factor used for this line item is equivalent to the annualized trend factor for claims under the deductible on the medical side, the derivation of which can be found in the response to Question #6.

6. Provide quantitative support for the 1.041 trend factor applied to the claims for the deductible in Exhibit 2a.

Response: To value the impact of trend on claims under the deductible level, MVP utilized the probability distribution function table from its benefit relativity model that corresponds to all medical and pharmacy claims (except for preventive services covered in full). The average cost per claim band was calculated both with and without the total allowed claim trend from the filing, and the "deductible value" is calculated as:

[Sum product of average claim band and frequency for bands below the deductible] PLUS [Deductible level times probability of claims above the deductible].

The deductible trend is then calculated as the change in the "deductible value" from the experience period to the rating period. The trends for the claims under the deductible level are lower that the base allowed trend as

The total deductible trend is calculated as:
[Sum product of the deductible trend for a plan based on its single deductible level and that plans experience period membership] Divided by [Total experience period membership]

The quantitative derivation of the trend factor has been determined to be confidential and has been provided under separate cover.

7. Please provide quantitative and qualitative support for the total administrative expenses including a projection for individual and small group separately. Please also demonstrate the impact of the projected increased membership for 2021.

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Response: MVP considers the Exchange population as a combined unit when setting the administrative expenses built into the rate filing. When setting premium rates for all of MVP's blocks of business the contribution to administrative expenses is considered collectively across the enterprise to ensure that in total MVP can cover the anticipated corporate administrative budget for the coverage year. Projections for membership, fully insured premiums, Administrative Services Only (ASO) administrative fees, anticipated administrative funding for the New York State Medicaid Managed Care program and MVP's administrative cost allocation models were all considered to project overall contribution to administrative expenses for 2021 and used to inform pricing assumptions.

While MVP's membership has grown in the Vermont Exchange population, MVP's enterprise-wide membership has declined while costs continue to rise. Please see the table below for a summary of MVP's enterprise-wide membership over recent time periods. Over the past 27 months, MVP's enterprise-wide membership has declined by 8.3%.

	Dec 2017	**Dec 2018**	**Dec 2019**	**Mar 2020**
MVP Enterprise Wide Members	592,228	567,663	545,383	542,873
% Change Compared to Prior Period	n/a	-4.1%	-3.9%	-0.5%

8. Please provide quantitative and qualitative support for the Benefit Actuarial Value and Induced Demand Reflected in Index Rate in Exhibit 7.

Response: Please see the tab "Question #8" in the attached Excel document (Support for L&E Objection #1_SERFF) for a quantitative derivation of the experience period average Benefit Relativity and Induced Demand factor. The relativities for all plans are calculated using the same benefit relativity model that is used to price the 2021 plans, and the induced demand factor is calculated using a similar methodology as the rate filing.

The average factor is calculated by member-weighting the product of the benefit relativity model actuarial value and induced demand factor, consistent with prior filings.

9. Please provide an exhibit showing the membership by plan and actuarial value for 2019, 2020 and the projection for 2021.

Response: Please see the tab "Question #9" in the attached Excel file (Support for L&E Objection #1_SERFF) for this exhibit.

10. Please provide the national study performed by Wakely Consulting Group for the impact of the National High Cost Reinsurance Pool.

Response: This response has been determined to be confidential and will be provided under separate cover.

11. Provide additional support for the 1.2% trend in Exhibit 6 in the projection of the CSR load.

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Response: The 1.2% trend for CSR amounts (claims above the member's subsidized deductible but below the unsubsidized Silver deductible) was calculated by calculating a weighted allowed trend (6.1% annually using experience period claim weighting) and multiplying by the likelihood of being between the average subsidized and average unsubsidized deductible using the PDF table shown in MVP's response to Objection #6 (0.206). Claims below the subsidized deductible in the PDF table are assumed to be handled under the member's cost sharing while claims above the unsubsidized deductible are assumed to be handled via MVP's claim expense.

12. As stated in the Actuarial Memorandum, MVP has begun to allow small groups to pay their premiums via credit card. What is the current percentage of groups that are paying via credit card? Explain any differences between the current percentage and the CY2021 assumption of 10%.

Response: Currently, only 4 small groups in Vermont out of 1,411 are paying by credit/debit card. However, this program is still in the very early stages of its development. MVP expects requests for this payment option to increase in the future. Information provided the state of Vermont shows individual credit/debit card utilization (where it is allowed for all members) at approximately 20% for January to March 2020.

13. Please provide support for the assumed COVID-19 immunization cost of $75.

Response: Wakely Consulting Group prepared a report titled "COVID-19 Cost Scenario Modeling" for America's Health Insurance Plans on March 30, 2020. In that report, Wakely assumed that the cost of a vaccination for COVID-19 was equal to the cost of a script of Tamiflu from the 2017 IBM MarketScan Research Database. MVP pulled claim data for Tamiflu for VT Exchange members in 2019 and found that the average cost was approximately $75 for brand Tamiflu scripts. Therefore, MVP assumed $75 for the price of the vaccine immediately upon release.

14. Please provide further support for the assumed COVID-19 immunization rate of 80%, considering that the flu immunization rate in Vermont is approximately 50% for adults and 60% for children.

Response: MVP recognizes that the take-up rate on the flu vaccine is generally lower than our assumption of the COVID-19 immunization rate. However, the unique nature of the virus makes it more likely that people would seek the vaccination which is why MVP is assuming 80% utilization consistent with the paper published by Wakely. This includes the severity of symptoms, mortality rate and easier transmission relative to the flu virus. Additionally, it is likely that the removal or lessening of many social distancing regulations will be contingent on individuals or populations achieving a vaccination rate (unlike the flu).

15. Please disclose the assumed date that the COVID-19 immunization will become available and provide support for the assumption.

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Response: An exact date for the immunization has not been assumed by MVP for purposes of the filing. However, several companies have already begun Phase I and Phase I/II clinical trials for testing on potential immunizations (see the London School of Hygiene and Tropical Medicine's vaccine pipeline tracker, https://vac-lshtm.shinyapps.io/ncov_vaccine_landscape/).The World Health Organization has announced their organization of a "Solidarity Trial" whereby these trials will be prioritized and organized in such a way as to accelerate the timeline of Phase II and Phase III trials and get an immunization to market quicker than normal. Finally, the Federal Government announced on May 15 their organization of Operation Warp Speed, whose stated goal is "to have substantial quantities of a safe and effective vaccine available for Americans by January 2021." (https://www.hhs.gov/about/news/2020/05/15/trump-administration-announces-framework-and-leadership-for-operation-warp-speed.html) At this time, MVP is assuming a vaccine will be ready to be mass produced and distributed in early 2021 and optimistically that distribution will be available earlier in the year.

16. Please provide support for the assumption that 20% of elective services were deferred during the 2 months in which elective surgeries were restricted. Support should include actual utilization/claims data observed during the 2-month time period.

Response: It should be made clearer that MVP is not assuming 20% of elective services were not performed during the 2 months. MVP is assuming that 100% of elective services were not performed (consistent with state guidelines in MVP's service area) during the 2 months, and 20% of those services will never be performed in the future (meaning 80% of the services will be performed at a future time).

MVP chose a 20% deferral rate based on a 2010 research paper sponsored by the Society of Actuaries called "Potential Impact of Pandemic Influenza on the U.S. Health Insurance Industry" (https://www.soa.org/globalassets/assets/files/research/projects/research-2010-pandemic-health-report.pdf). On page 28 of the report, the author states "Reports have shown that this deferral of care during a crisis is often not recaptured but is instead a net savings to the system. This effect has been quantified by assuming a 5 percent reduction in individuals seeking elective services in a moderate scenario, and a 20 percent reduction in a severe scenario." The author cites research including experience with other major disruptions to the health care supply chain in modeling those assumptions.

If MVP were to assume a lower deferral rate (such as the 5 percent reduction in a moderate scenario above), the cost impacts presented in the response to Question 17 below would increase as more services would be made up.

As stated above, effectively all the elective services during this period were cancelled. Therefore, data for the 2 months in question would not be useful in supporting the assumption, as there is no way to determine which services that were cancelled will be made up simply by looking at the reduction in claim expense.

17. Has the company considered the possibility of a second wave of COVID-19 resulting in a second period in which elective surgeries would be restricted? If that was the case how would costs be impacted?

Response: MVP modeled several scenarios of COVID-19 "waves" when determining its assumption for elective services. Working under the same assumptions of deferral of services and hospital capacity, please see the following table for the impact on 2021 claim cost under those various scenarios:

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Months of COVID-19 in 2020	Months of COVID-19 in 2021	Impact on 2021 Cost PMPM (10% increase in Hosp Capacity)
2	0	$1.50
3	0	$4.51
6	0	$4.51
3	3	($7.89)
6	3	($7.89)

The scenarios with six months of COVID-19 in 2020 in the above table assume elective services will be canceled for mid-March through mid-June and then again in October through December of 2020. It should be noted that in every scenario above except for the first, the make-up of elective services will spill into 2022 and increase claim cost then as well. If providers can work at greater than 110% capacity, that would speed up the timeline and push those costs back into 2021.

18. Please provide support for the assumption that providers will perform 110% of elective services from August 2020 through April 2021.

Response: Based on information provided to us by our medical management team, providers of elective services were already working at near to full capacity prior to the pandemic during regular working hours. To make up for lost revenue while services were canceled, MVP is assuming providers will increase capacity through extended hours or working weekends. While providers are financially incentivized to perform as many services as possible to recoup lost revenue, there is an upper bound on the number of services they can provide. A lack of physical (number of available rooms, the potential for personal protective equipment shortages) and human capital (nurses, doctors and other support staff) as well as the additional time spent following the more stringent sanitation practices in the wake of the pandemic place a cap on how many services can be provided at one time.

MVP settled on the 110% assumption by balancing patient need for these services to be done with the limits described above. While we do feel that working above an assumed capacity for a long period of time is not sustainable, in the short-term it can be reasonably accomplished.

19. What was the company's observed change in emergency department utilization due to COVID19? Has the company considered the impact of COVID-19 on ED utilization and utilization trends?

Response: The lack of complete data on emergency room claims at this point (a maximum of two months of run-out) has limited MVP's analysis of utilization due to COVID-19. Please see the following table for allowed claims PMPM, adjusted for the number of days in a month, for March and April 2020 relative to the previous 14 months (January 2019 to February 2020):

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Time Period	Allowed Claims PMPM
April 2020, 0 months run out	$6.74
Average month 0, 01/19 to 02/20	$12.66
March 2020, 1 month run out	$20.10
Average month 0+1, 01/19 to 02/20	$27.60

These decreases are subject to changes in claims processing patterns as well as changes in consumer behavior, so a full analysis would require more run-out of the data. Because MVP has assumed that a vaccine will be available in early 2021, we are assuming that ED utilization will return to pre-COVID-19 levels in 2021 and no adjustment to utilization trend is necessary.

20. Please provide a reconciliation between the exhibits (i.e. Exh 3) and the URRT. Specifically, please tie to the morbidity adjustment, plan design changes, other factor, and the Market Adjusted Index Rate.

Response: It should first be noted that due to the rounding requirements in the URRT, we should not expect the Market Adjusted Index Rate in the URRT ($670.07) to tie exactly to the value labeled "Adjusted Claims Cost for Pricing" on Exhibit 7 of the rate filing document ($669.54), although they are designed to be equivalent. The following provides a list of adjustments made in the URRT and the equivalent locations in the rate filing document:

Morbidity Adjustment- Impact of Pooling High Cost Claimants
-The difference between row 10 (claims removed above the pooling point) and row 11 (assumed claims above the pooling point, using the pooling charge) on an allowed basis, as a percentage of trended allowed claims (0.993).

Morbidity Adjustment- Impact of COVID-19 Immunization Cost
-Row 17 of Exhibit 3, as a percentage of trended allowed claims (1.010).

Morbidity Adjustment- Impact of COVID-19 Pent-up Demand
-Row 18 of Exhibit 3, as a percentage of trended allowed claims (1.003).

Plan Design Changes- Paid to Allowed Ratio Normalization
-(Row 28 of Exhibit 3 DIVIDED BY Benefit Relativity * Induced Demand Reflected in Index Rate, Exhibit 7) DIVIDED BY (URRT Worksheet 1, cell H30 TIMES Morbidity Adjustment factor from URRT TIMES Other factor from URRT) (1.006). This value represents the difference between the assumed allowed trended claim expense using MVP's benefit relativity model and the allowed trended claim expense using actual allowed claims in the URRT.

Other- Impact of National High Cost Reinsurance Pool (HCRP)
-Row 19 of Exhibit 3, as a percentage of trended allowed claims (1.003).

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Rows 15 and 16 of Exhibit 3 are not included as claim adjustments in the URRT because they are adjustments to MVP's expense only and do not impact the allowed claims. For a full description of each of the factors in the URRT, please see the Federal Actuarial Memorandum provided as a supplement to the URRT, starting on page 3.

21. Please provide inforce membership by plan for February 2020.

Response: Please see the tab "Question #21" in the attached Excel file (Support for L&E Objection #1_SERFF) for this exhibit.

If you have any questions or require any additional information, please contact me at 518-386-7213.

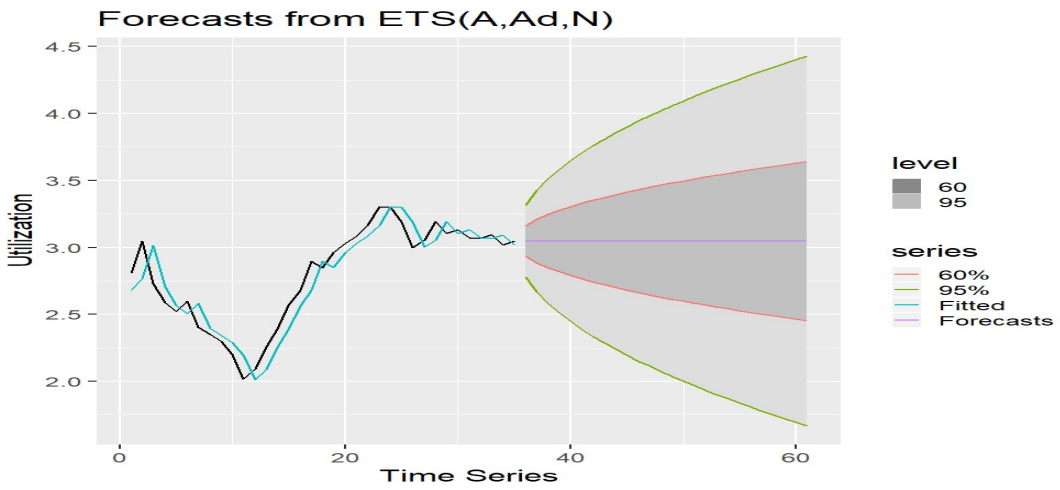
Sincerely,

Eric Bachner, ASA
Leader, Actuarial, Commercial/Government Programs
MVP Health Care

Prediction Intervals for Utilization

Data set: VT IP

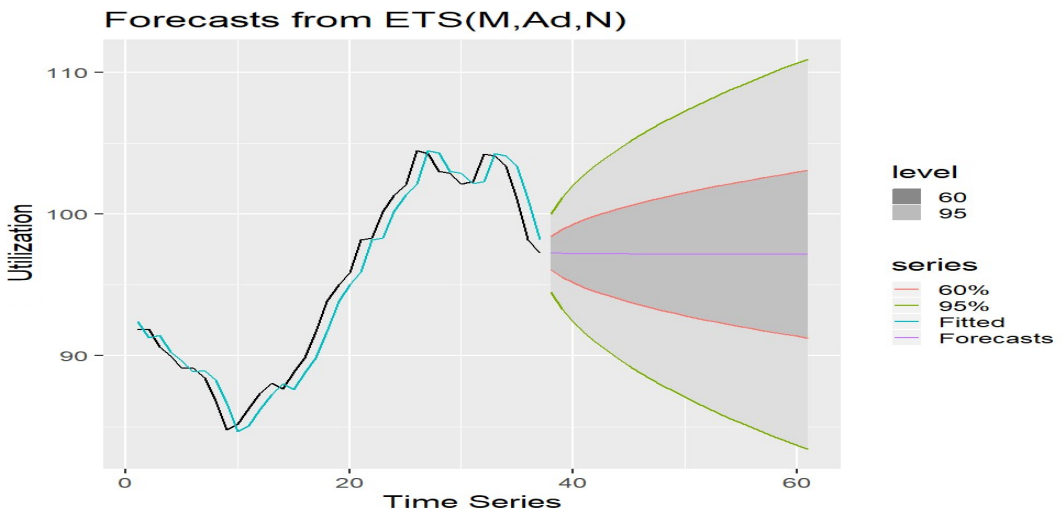
R12 Ending	Timeline	Rolling 12 Month Utilization Per 1000 Members	Forecast	Lower Bound 60% Confidence	Upper Bound 60% Confidence	Lower Bound 95% Confidence	Upper Bound 95% Confidence
2016-12	1	2.805					
2017-01	2	3.047					
2017-02	3	2.728					
2017-03	4	2.587					
2017-04	5	2.523					
2017-05	6	2.598					
2017-06	7	2.404					
2017-07	8	2.350					
2017-08	9	2.297					
2017-09	10	2.200					
2017-10	11	2.017					
2017-11	12	2.095					
2017-12	13	2.258					
2018-01	14	2.389					
2018-02	15	2.565					
2018-03	16	2.680					
2018-04	17	2.897					
2018-05	18	2.849					
2018-06	19	2.962					
2018-07	20	3.030					
2018-08	21	3.083					
2018-09	22	3.165					
2018-10	23	3.304					
2018-11	24	3.298					
2018-12	25	3.190					
2019-01	26	3.000					
2019-02	27	3.054					
2019-03	28	3.195					
2019-04	29	3.105					
2019-05	30	3.131					
2019-06	31	3.070					
2019-07	32	3.068					
2019-08	33	3.094					
2019-09	34	3.019					
2019-10	35	3.048					
2019-11	36		3.048	2.932	3.163	2.779	3.316
2019-12	37		3.047	2.885	3.210	2.669	3.426
2020-01	38		3.047	2.848	3.247	2.583	3.512
2020-02	39		3.047	2.817	3.278	2.511	3.584
2020-03	40		3.047	2.789	3.305	2.447	3.648
2020-04	41		3.047	2.765	3.330	2.389	3.706
2020-05	42		3.047	2.742	3.353	2.336	3.759
2020-06	43		3.047	2.720	3.374	2.286	3.809
2020-07	44		3.047	2.700	3.394	2.239	3.855
2020-08	45		3.047	2.681	3.413	2.195	3.900
2020-09	46		3.047	2.663	3.431	2.153	3.942
2020-10	47		3.047	2.646	3.449	2.112	3.982
2020-11	48		3.047	2.629	3.465	2.074	4.021
2020-12	49		3.047	2.613	3.481	2.037	4.058
2021-01	50		3.047	2.598	3.496	2.001	4.094
2021-02	51		3.047	2.583	3.511	1.966	4.128
2021-03	52		3.047	2.568	3.526	1.932	4.162
2021-04	53		3.047	2.554	3.540	1.900	4.194
2021-05	54		3.047	2.541	3.553	1.868	4.226
2021-06	55		3.047	2.528	3.567	1.837	4.257
2021-07	56		3.047	2.515	3.580	1.807	4.287
2021-08	57		3.047	2.502	3.592	1.778	4.317
2021-09	58		3.047	2.490	3.605	1.749	4.345
2021-10	59		3.047	2.478	3.617	1.721	4.374
2021-11	60		3.047	2.466	3.629	1.693	4.401
2021-12	61		3.047	2.454	3.640	1.666	4.428


Forecasts from ETS(A,Ad,N)
Utilization
4.5
4.0
3.5
3.0
2.5
2.0
0
20
40
60
Time Series
level
60
95
series
60%
95%
Fitted
Forecasts

Prediction Intervals for Utilization

Data set: VT OP

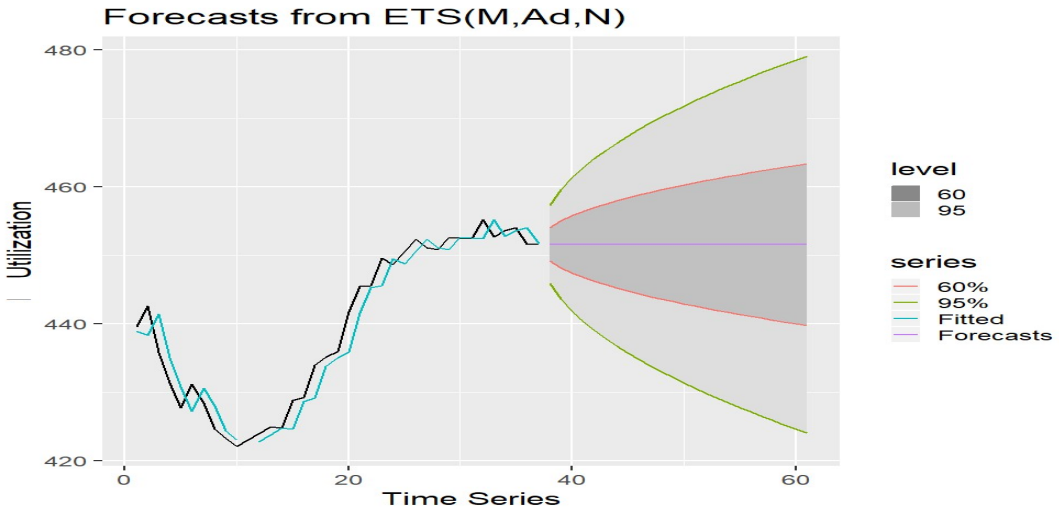
R12 Ending	Timeline	Rolling 12 Month Utilization Per 1000 Members	Forecast	Lower Bound 60% Confidence	Upper Bound 60% Confidence	Lower Bound 95% Confidence	Upper Bound 95% Confidence
2016-12	1	91.841					
2017-01	2	91.891					
2017-02	3	90.637					
2017-03	4	89.971					
2017-04	5	89.124					
2017-05	6	89.171					
2017-06	7	88.434					
2017-07	8	86.805					
2017-08	9	84.769					
2017-09	10	85.180					
2017-10	11	86.287					
2017-11	12	87.330					
2017-12	13	88.057					
2018-01	14	87.658					
2018-02	15	88.837					
2018-03	16	89.864					
2018-04	17	91.685					
2018-05	18	93.827					
2018-06	19	95.015					
2018-07	20	95.882					
2018-08	21	98.174					
2018-09	22	98.310					
2018-10	23	100.174					
2018-11	24	101.317					
2018-12	25	102.096					
2019-01	26	104.475					
2019-02	27	104.282					
2019-03	28	103.022					
2019-04	29	102.886					
2019-05	30	102.141					
2019-06	31	102.288					
2019-07	32	104.252					
2019-08	33	104.110					
2019-09	34	103.392					
2019-10	35	101.068					
2019-11	36	98.192					
2019-12	37	97.266					
2020-01	38		97.249	96.063	98.435	94.487	100.011
2020-02	39		97.234	95.554	98.915	93.321	101.148
2020-03	40		97.223	95.161	99.285	92.421	102.025
2020-04	41		97.213	94.828	99.598	91.659	102.767
2020-05	42		97.205	94.535	99.875	90.987	103.423
2020-06	43		97.199	94.270	100.127	90.379	104.019
2020-07	44		97.193	94.027	100.360	89.819	104.568
2020-08	45		97.189	93.800	100.578	89.298	105.081
2020-09	46		97.186	93.588	100.783	88.808	105.563
2020-10	47		97.183	93.388	100.978	88.345	106.021
2020-11	48		97.180	93.197	101.163	87.904	106.456
2020-12	49		97.178	93.015	101.341	87.483	106.873
2021-01	50		97.177	92.841	101.512	87.080	107.273
2021-02	51		97.175	92.674	101.677	86.692	107.659
2021-03	52		97.174	92.512	101.836	86.317	108.031
2021-04	53		97.173	92.356	101.991	85.955	108.392
2021-05	54		97.173	92.205	102.140	85.604	108.741
2021-06	55		97.172	92.059	102.286	85.264	109.080
2021-07	56		97.172	91.916	102.427	84.933	109.411
2021-08	57		97.171	91.777	102.565	84.610	109.732
2021-09	58		97.171	91.642	102.700	84.295	110.046
2021-10	59		97.171	91.510	102.831	83.988	110.353
2021-11	60		97.170	91.381	102.960	83.688	110.653
2021-12	61		97.170	91.255	103.086	83.395	110.946


Forecasts from ETS(M,Ad,N)
110
100
90
Utilization
0
20
40
60
Time Series
level
60
95
series
60%
95%
Fitted
Forecasts

Prediction Intervals for Utilization

Data set: VT PHY

R12 Ending	Timeline	Rolling 12 Month Utilization Per 1000 Members	Forecast	Lower Bound 60% Confidence	Upper Bound 60% Confidence	Lower Bound 95% Confidence	Upper Bound 95% Confidence
2016-12	1	439.553					
2017-01	2	442.545					
2017-02	3	435.736					
2017-03	4	431.355					
2017-04	5	427.736					
2017-05	6	431.169					
2017-06	7	428.373					
2017-07	8	424.627					
2017-08	9	423.260					
2017-09	10	422.073					
2017-10	11	423.030					
2017-11	12	423.947					
2017-12	13	424.963					
2018-01	14	424.745					
2018-02	15	428.813					
2018-03	16	429.217					
2018-04	17	433.962					
2018-05	18	435.060					
2018-06	19	435.911					
2018-07	20	441.760					
2018-08	21	445.400					
2018-09	22	445.527					
2018-10	23	449.535					
2018-11	24	448.658					
2018-12	25	450.567					
2019-01	26	452.336					
2019-02	27	451.063					
2019-03	28	450.814					
2019-04	29	452.591					
2019-05	30	452.461					
2019-06	31	452.434					
2019-07	32	455.211					
2019-08	33	452.647					
2019-09	34	453.611					
2019-10	35	453.972					
2019-11	36	451.580					
2019-12	37	451.561					
2020-01	38		451.562	449.113	454.011	445.858	457.265
2020-02	39		451.561	448.138	454.983	443.590	459.532
2020-03	40		451.560	447.382	455.737	441.831	461.288
2020-04	41		451.559	446.742	456.376	440.341	462.777
2020-05	42		451.558	446.176	456.940	439.024	464.092
2020-06	43		451.557	445.663	457.452	437.830	465.285
2020-07	44		451.557	445.191	457.923	436.731	466.383
2020-08	45		451.557	444.750	458.363	435.706	467.407
2020-09	46		451.556	444.337	458.776	434.743	468.369
2020-10	47		451.556	443.945	459.167	433.831	469.281
2020-11	48		451.556	443.572	459.539	432.963	470.148
2020-12	49		451.556	443.216	459.895	432.134	470.978
2021-01	50		451.555	442.874	460.237	431.338	471.773
2021-02	51		451.555	442.545	460.566	430.571	472.539
2021-03	52		451.555	442.227	460.883	429.832	473.279
2021-04	53		451.555	441.920	461.190	429.116	473.994
2021-05	54		451.555	441.622	461.488	428.423	474.687
2021-06	55		451.555	441.333	461.777	427.749	475.360
2021-07	56		451.555	441.051	462.058	427.094	476.015
2021-08	57		451.555	440.777	462.332	426.456	476.653
2021-09	58		451.555	440.510	462.599	425.834	477.276
2021-10	59		451.555	440.249	462.860	425.226	477.883
2021-11	60		451.555	439.994	463.115	424.632	478.477
2021-12	61		451.555	439.744	463.365	424.051	479.058


Forecasts from ETS(M,Ad,N)
480
460
440
420
Utilization
0
20
40
60
Time Series
level
60
95
series
60%
95%
Fitted
Forecasts

Utilization	R12 Ending	Timeline	Rolling 12 Month Utilization Per 1000 Members	Forecast	Lower Bound 60% Confidence	Upper Bound 60% Confidence	Lower Bound 95% Confidence	Upper Bound 95% Confidence
IP	2019-10	35	3.05					
IP	2021-10	59		3.05	2.48	3.62	1.72	4.37
OP	2019-12	37	97.27					
OP	2021-12	61		97.17	91.25	103.09	83.39	110.95
PHY	2019-12	37	451.56					
PHY	2021-12	61		451.55	439.74	463.37	424.05	479.06

2 Year Trends

Utilization	Mean	Standard Deviation	Weight
IP	-0.03%	22.20%	21.22%
OP	-0.10%	7.23%	48.12%
PHY	0.00%	3.11%	30.66%
Blend	-0.06%	5.91%	

2 Year Trends

5th Percentile	10th Percentile	20th Percentile	30th Percentile	40th Percentile	50th Percentile	60th Percentile	70th Percentile	80th Percentile	90th Percentile	95th Percentile
-9.80%	-7.61%	-5.02%	-3.17%	-1.56%	-0.06%	1.40%	3.01%	4.91%	7.53%	9.69%

Derivation of High Cost Claimant Percentage, 2020 Exchange Filing vs. 2021 Exchange Filing

	2020 Exchange Filing		
	Individual	Small ACA	Total
Number of Claimants above $100K	60	85	145
Claims above $100k Pooling Point	$4,206,344	$6,990,367	$11,196,712
Claims below $100k Pooling Point	$47,493,146	$59,254,663	$106,747,809
Member Months	130,575	172,758	303,333
Claims >$100k PMPM	$32.21	$40.46	$36.91
Claims <$100k PMPM	$363.72	$342.99	$351.92
Pooling Charge	8.9%	11.8%	10.5%

	2021 Exchange Filing		
	Individual	Small ACA	Total
Number of Claimants above $100K	63	86	149
Claims above $100k Pooling Point	$4,722,772	$7,022,758	$11,745,530
Claims below $100k Pooling Point	$46,831,226	$58,791,382	$105,622,608
Member Months	130,571	172,735	303,306
Claims >$100k PMPM	$36.17	$40.66	$38.73
Claims <$100k PMPM	$358.66	$340.36	$348.24
Pooling Charge	10.1%	11.9%	11.1%

Derivation of Experience Period Average AV and Induced Demand Factor

				Weighted Average AV * ID
				0.7963
Medical Coplan	**Member Months**	**Pricing Model AV**	**Induced Demand Factor**	**AV * ID**
VT Standard Platinum 1 (2019)	30,806	0.911	1.150	1.048
VT Standard Gold 1 (2019)	44,561	0.821	1.097	0.901
VT Non-Standard Gold 2 (2019)	4,387	0.826	1.103	0.911
VT Non-Standard Gold 3 (2019)	66,864	0.820	1.098	0.901
VT Standard Silver 3 (2019)	6,890	0.737	1.050	0.774
VT Standard Silver 4 (2019)	6,064	0.722	1.043	0.753
VT Non-Standard Silver 2 (2019)	1,268	0.727	1.044	0.759
VT Non-Standard Silver 1 (2019)	58,572	0.719	1.039	0.747
VT Standard Silver 3 II (2019)	13,955	0.737	1.050	0.774
VT Standard Silver 4 II (2019)	13,722	0.722	1.043	0.753
VT Non-Standard Silver 2 II (2019)	5,810	0.726	1.045	0.759
VT Non-Standard Silver 1 II (2019)	13,495	0.719	1.039	0.747
VT Standard Bronze 2 (2019)	33,105	0.627	1.007	0.632
VT Standard Bronze 3 (2019)	37,421	0.633	1.009	0.639
VT Standard Bronze 4 (2019)	3,610	0.665	1.019	0.678
VT Non-Standard Bronze 5 (2019)	10,027	0.639	1.011	0.646
VT Non-Standard Bronze 1 (2019)	8,807	0.628	1.009	0.634
VT Catastrophic (2019)	152	0.649	1.014	0.658

Derivation of 2019 Average AV

Medical Coplan	Member Months	Pricing Model AV
		Weighted Average AV: 0.7471
VT Non-Standard Bronze 1 (2019)	8,807	0.628
VT Standard Bronze 2 (2019)	33,105	0.627
VT Standard Bronze 3 (2019)	37,421	0.633
VT Standard Bronze 4 (2019)	3,610	0.665
VT Non-Standard Bronze 5 (2019)	10,027	0.639
VT Catastrophic (2019)	152	0.649
VT Standard Gold 1 (2019)	44,561	0.821
VT Non-Standard Gold 2 (2019)	4,387	0.826
VT Non-Standard Gold 3 (2019)	66,864	0.820
VT Non-Standard Silver 1 (2019)	58,572	0.719
VT Non-Standard Silver 1 II (2019)	13,495	0.719
VT Non-Standard Silver 2 (2019)	1,268	0.727
VT Non-Standard Silver 2 II (2019)	5,810	0.726
VT Standard Silver 3 (2019)	6,890	0.737
VT Standard Silver 3 II (2019)	13,955	0.737
VT Standard Silver 4 (2019)	6,064	0.722
VT Standard Silver 4 II (2019)	13,722	0.722
VT Standard Platinum 1 (2019)	30,806	0.911

Derivation of February 2020 Average AV

Medical Coplan	Members	Pricing Model AV
		Weighted Average AV: 0.7464
VT Non-Standard Bronze 1 (2020)	962	0.618
VT Standard Bronze 2 (2020)	3,003	0.622
VT Standard Bronze 3 (2020)	3,480	0.630
VT Standard Bronze 4 (2020)	416	0.660
VT Non-Standard Bronze 5 (2020)	837	0.639
VT Catastrophic (2020)	9	0.643
VT Standard Gold 1 (2020)	5,139	0.815
VT Non-Standard Gold 2 (2020)	510	0.819
VT Non-Standard Gold 3 (2020)	7,361	0.820
VT Non-Standard Silver 1 (2020)	5,122	0.692
VT Non-Standard Silver 1 II (2020)	1,686	0.692
VT Non-Standard Silver 2 (2020)	141	0.726
VT Non-Standard Silver 2 II (2020)	624	0.726
VT Standard Silver 3 (2020)	490	0.726
VT Standard Silver 3 II (2020)	1,640	0.726
VT Standard Silver 4 (2020)	311	0.716
VT Standard Silver 4 II (2020)	1,628	0.716
VT Standard Platinum 1 (2020)	3,621	0.909

Derivation of Projected 2021 Average AV

Medical Coplan	Members	Pricing Model AV
		Weighted Average AV: 0.7437
VT Non-Standard Bronze 1 (2021)	962	0.609
VT Standard Bronze 2 (2021)	3,003	0.621
VT Standard Bronze 3 (2021)	3,480	0.628
VT Standard Bronze 4 (2021)	416	0.649
VT Non-Standard Bronze 5 (2021)	837	0.634
VT Catastrophic (2021)	9	0.634
VT Standard Gold 1 (2021)	5,139	0.803
VT Non-Standard Gold 2 (2021)	510	0.823
VT Non-Standard Gold 3 (2021)	7,361	0.809
VT Non-Standard Silver 1 (2021)	5,122	0.707
VT Non-Standard Silver 1 II (2021)	1,686	0.707
VT Non-Standard Silver 2 (2021)	141	0.719
VT Non-Standard Silver 2 II (2021)	624	0.718
VT Standard Silver 3 (2021)	490	0.722
VT Standard Silver 3 II (2021)	1,640	0.722
VT Standard Silver 4 (2021)	311	0.712
VT Standard Silver 4 II (2021)	1,628	0.712
VT Standard Platinum 1 (2021)	3,621	0.907

February 2020 Membership By Plan

Medical Coplan	Members
VT Non-Standard Bronze 1 (2020)	962
VT Standard Bronze 2 (2020)	3,003
VT Standard Bronze 3 (2020)	3,480
VT Standard Bronze 4 (2020)	416
VT Non-Standard Bronze 5 (2020)	837
VT Catastrophic (2020)	9
VT Standard Gold 1 (2020)	5,139
VT Non-Standard Gold 2 (2020)	510
VT Non-Standard Gold 3 (2020)	7,361
VT Non-Standard Silver 1 (2020)	5,122
VT Non-Standard Silver 1 II (2020)	1,686
VT Non-Standard Silver 2 (2020)	141
VT Non-Standard Silver 2 II (2020)	624
VT Standard Silver 3 (2020)	490
VT Standard Silver 3 II (2020)	1,640
VT Standard Silver 4 (2020)	311
VT Standard Silver 4 II (2020)	1,628
VT Standard Platinum 1 (2020)	3,621