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Minnesota Comprehensive Health Association

Initial 2018 Benefit Year Reinsurance Estimate Under Minnesota Premium Security Plan

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Introduction

The Minnesota Comprehensive Health Association (MCHA) retained Wakely Consulting Group, LLC (Wakely) to collect data related to the Minnesota state-based reinsurance program (referred to as the Minnesota Premium Security Plan (MPSP)), review the data for reasonability, calculate the reinsurance payments to the carriers participating in the program, and provide summary reports for MCHA to distribute as appropriate to stakeholders. Unlike previous reports, this report contains a projection of 2018 reinsurance that will be used by the Minnesota Legislature and Minnesota Management and Budget (MMB).

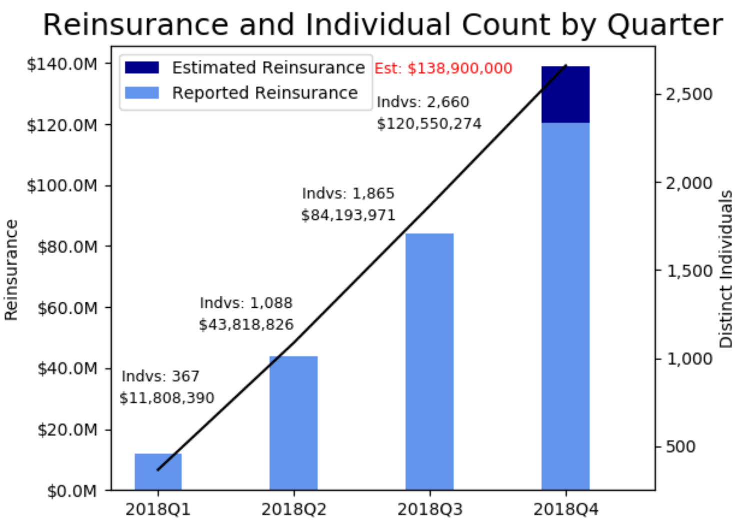
This document has been prepared for the sole use of MCHA and its Board of Directors. This report may not be provided to other outside organizations or used for other purposes without Wakely's advance, written permission. Wakely does not intend to benefit third parties and assumes no duty or liability to other parties who receive this work. The report should only be reviewed in its entirety and then only by qualified individuals. This document contains the data, assumptions, and methods used in our analyses and satisfies the Actuarial Standard of Practice (ASOP) 41 reporting requirements.

Executive Summary

The estimated reinsurance for 2018 benefit year under the MPSP is $138.9 million. This estimate is based on claims incurred and paid through December 2018 and has been adjusted for unreported claims. This value reflects Wakely's best estimate. Final 2018 reinsurance will be calculated using CMS EDGE Server data with claims reported through April 2019. As a result, using claims paid through December 2018 without adjustment for completion to estimate final reinsurance would understate actual reinsurance. The most significant difference between the data supplied by the carriers for this projection and the EDGE server dataset is claim runnout.

Reported reinsurance for 2018 with claims paid through December totaled $120.5 million for 2,660 distinct individuals. There are approximately 155,000 individuals in Minnesota's Non-Grandfathered Individual Market [1].

The figure to the right shows the reinsurance and distinct enrollees underlying the report for the first four quarterly reports of the MPSP program. Note that each quarter is cumulative. That is, the $11.8 million in the 2018Q1 report is included in the $120.6 million in the 2018Q4 report. The light blue bars show the reinsurance calculated in each quarter and the black line represents the distinct individuals within each report. The dark blue section of the 2018Q4 bar represents Wakely's estimate of reinsurance that has been incurred but not reported.



[1]Source: https://mn.gov/commerce/media/news/#/detail/appId/2/id/354562

Table One below gives enrollment and reinsurance information underlying the 2018Q4 report.

Table One: 2018Q4 Reinsurance and Enrollee Counts

	Distinct Individuals	Reported Reinsurance	Projected Reinsurance
Statewide	2,660	$120,550,274	$138,900,000

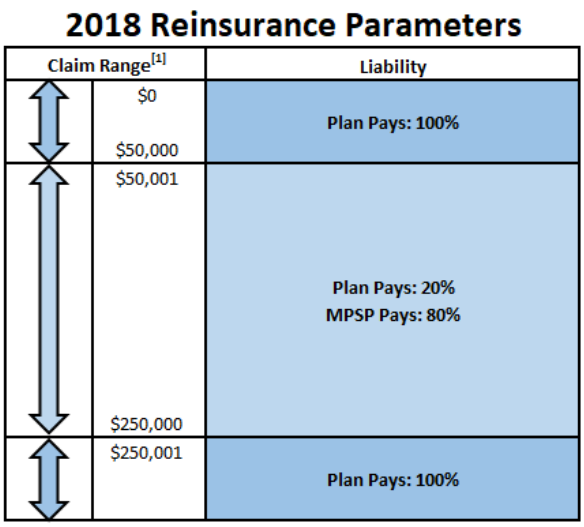
The estimated $138.9 million is less than the $270 million in the Section 1332 Waiver. The difference is explained by the decrease in the size of Minnesota's Non-Grandfathered Individual Market between 2015 and 2018.

The data underlying this analysis was provided by Minnesota carriers eligible for reinsurance and the assumptions that were used in this estimate are based on historical experience for Minnesota's Non-Grandfathered Individual Market. For additional detail, please see the Methodology section and Appendix A.

The remainder of this report provides a description of the methodology, additional breakout of reinsurance by region, metal level, and other reporting variables, and associated caveats and disclosures.

Methodology

Carriers participating in Minnesota's Non-Grandfathered Individual Commercial Market provided Wakely with 2018 claim experience with run-out through December 2018 in a template developed by Wakely. The template included both enrollment and claim experience at the carrier level. The template also included individual-level data for individuals that carriers identified with claims above the attachment point of $50,000. The dataset was limited to claims with an incurred date or discharge date in 2018.



[1] - Claim Range Excludes Member Cost Sharing

Wakely aggregated the templates and calculated reinsurance payments using the 2018 reinsurance parameters shown in the figure to the left. Wakely validated this amount against calculations developed by the carrier.

In addition to the regular quarterly data request, carriers provided Wakely with historical experience between 2015 and 2017 for high claimants in the Minnesota Non-Grandfathered Individual Market. This additional data included claim lag triangles for Wakely to analyze the timing difference between when claims are incurred and when claims are paid. Carriers also provided 2015 through 2017 experience broken out separately for the three following cohorts of individuals:

1. Cohort One - Individuals with incurred claims that exceeded the attachment point but not the reinsurnace cap with claims paid through December. Enrollees in this cohort for benefit year 2018 will have claims that are adjudicated and paid in 2019 which were incurred in 2018. These claims will be partially reimbursed by MPSP for benefit year 2018.

2. Cohort Two - Individuals with claims that exceeded the reinsurance cap with claims paid through December. For benefit year 2018, members in this cohort will have claims that are adjudicated and paid in 2019 that were incurred in 2018. These claims are entirely the liability of the enrollee's carrier.

3. Cohort Three - Individuals with claims that did not exceeded the attachment point paid through December, but did exceed the attachment point with claims paid in the following year. Enrollees in this cohort for benefit year 2018 will have claims that are adjudicated and paid in 2019 that are partially reimbursed by MPSP.

Wakely was able to categorize each member in the underlying 2018 individual-level file as either Cohort One or Cohort Two. Given the underlying nature of claim data, carriers and Wakely are not able to identify members that should be classified as Cohort Three. For example, an individual may be discharged from a hospital in late December which causes the member to exceed the attachment point, but the claim will not be fully adjudicated until February of 2019. This member will be eligible for reinsurance because the February adjudication of the claim will occur before the EDGE Server submission cutoff date in April, but the member will not be in the individual-level file because the claim was adjudicated after December.

Wakely then estimated final reinsurance for each cohort separately using the following methods:

1. Cohort One - Wakely used historical experience to estimate completion factors to account for incurred 2018 claims that will be paid in 2019.

2. Cohort Two - Wakely did not adjust reinsurance for Cohort Two since any additional claims that are paid for these individuals in 2019 are the liability of the carrier.

3. Cohort Three - Wakely estimated the average reinsurance per member using historical experience. Wakely estimated the number of individuals using historical member distributions relative to Cohort One and Cohort Two.

Table Two provides the estimate of the statewide reinsurance per enrollee broken out by the cohorts described above.

Table Two: Development of Estimated Reinsurance Per Enrollee by Cohort

	Reinsurance Per Enrollee Thru December	**Completion Factor**	**Additive Adj**	**2018 Estimated Reinsurance Per Enrollee**
Cohort	(A)	(B)	(C)	(D)
Cohort One	\$36,448	1.132	\$0	\$41,263
Cohort Two	\$160,000	1.000	\$0	\$160,000
Cohort Three	\$0	1.000	\$22,375	\$22,375

The formula used to calculate 2018 Estimated Reinsurance Per Enrollee is:

$$(D) = (A) \times (B) + (C).$$

Table Three shows the calculation of the aggregate reinsurance shown in Table One using estimated enrollees in Cohort Three and the estimated reinsurance from Table Two.

Table Three: Development of Aggregate 2018 Reinsurance Estimate

	Estimated Enrollees	2018 Estimated Reinsurance Per Enrollee	Aggregate Estimated Reinsurance
Cohort One	2,469	$41,263	$101,877,830
Cohort Two	191	$160,000	$30,560,000
Cohort Three	287	$22,375	$6,421,625
Total Enrollees	**2,947**	**$47,119**	**$138,859,455**

Please note the following about Table Two and Table Three:

1. We assumed that Cohort One reinsurance per enrollee will complete by a factor of 1.132. Historically, Cohort One's completion was between 1.103 and 1.146.
2. We assumed 9.7% ($= \frac{287}{2{,}947}$) of the Total Distinct Enrollees will be in Cohort Three. Historically, Cohort Three has been between 8.7% and 11.3% of the total reinsurance eligible population.
3. We assumed that the reinsurance per enrollee in Cohort Three is $22,375. We used the 2017 reinsurance per reinsurance eligible enrollee for Cohort Three as the basis and increased it by 10% to account for claims trend. This is similar to year-over-year increase in reinsurance per enrollee observed in Cohort Three since 2015.
4. In total, we estimate that reported reinsurance will increase by a factor of 1.152 ($= \frac{\$138{,}859{,}455}{\$120{,}550{,}274}$) between the December individual-level file and the final reinsurance calculation. Historically, the total completion rate has varied between 1.115 and 1.153.
5. In the Executive Summary, the total aggregate reinsurance is rounded to the nearest $100,000.

Appendix A shows historical experience for each cohort broken out by year that was the basis for developing assumptions used in this estimate.

Analysis

This section provides additional detail for the reinsurance amount shown in Table One. Please note that the values shown in this section reflect the reinsurance amounts before the estimated completion.

Reinsurance by First Quarter in Report

The table on the next page further divides Table One into the report when an individual first became eligible for reinsurance. For example, if an individual was in the 2018Q2 report but not the 2018Q1 report, then he or she would be included in the 2018Q2 line. This table illustrates how much of the increase in reinsurance between reports is attributed to individuals first exceeding the attachment point and individuals already exceeding the attachment point incurring additional claims.

Table Four: Reinsurance Amount by Individual First Report

		Reinsurance by Quarter				
Cohort	**Indvs**	**2018Q1**	**2018Q2**	**2018Q3**	**2018Q4**	**2018**
2018Q1	367	$11,808,390	$11,936,441	$5,907,844	$2,471,560	$32,124,235
2018Q2	721		$20,073,995	$16,706,869	$9,609,201	$46,390,065
2018Q3	777			$17,760,432	$11,442,693	$29,203,124
2018Q4	795				$12,832,850	$12,832,850
Total	**2,660**	**$11,808,390**	**$32,010,436**	**$40,375,144**	**$36,356,303**	**$120,550,274**

Reinsurance by Area

The table below shows the amount of reinsurance split out by Minnesota's rating region. In previous reports, reinsurance was reported at the Metro / Non-Metro level in previous reports. The distribution between Metro / Non-Metro has been relatively stable between quarterly reports with a slight shift towards the Metro region. For example, in the 2018Q1 report, approximately 51% of reinsurance was for individuals in the Metro region. In this report, approximately 57% of reinsurance dollars are in the Metro region.

Table Five: Reinsurance Amount by Area

Rate Region	Reinsurance Amount	Distribution
1 - Olmsted (Rochester)	$11,977,278	10%
2 - St. Louis (Duluth)	$7,207,401	6%
3 - South Central	$7,051,145	6%
4 - South West	$4,067,273	3%
5 - West Central (Chippewa)	$5,154,616	4%
6 - West (Wilkin)	$4,710,909	4%
7 - Central (Crow Wing)	$9,057,973	8%
8 - Metro / St. Cloud	$68,865,847	57%
9 - North West (Kittson)	$2,457,832	2%
Statewide	**$120,550,274**	**100%**

Reinsurance by Metal Level

The table below provides the reinsurance and distribution by metal tier. There are four different metal tiers in the Individual Commercial market which reflect different levels of cost sharing an individual is expected to pay. The leanest is the bronze plan where an individual can expect to pay for about 40% of his or her total medical costs out of pocket in the form of cost sharing such as deductibles, coinsurance, and copays. The richest plan type is the platinum tier where an individual can expect to pay approximately 10% of total costs out of pocket. There is a fifth tier called Catastrophic, but enrollment is limited to individuals who are eligible for hardship exemption or are under the age of 30.

Throughout the year, there has been a gradual shift away from the bronze tier into the higher metal tiers. In the 2018Q1 report, approximately 51% of the total reinsurance amount was in the Bronze tier. This has decreased to approximately 47% in the 2018Q4 report.

Table Six: Reinsurance Amount by Metal Tier

Metal Tier	Reinsurance Amount	Distribution
Catastrophic	$315,197	0%
Bronze	$57,013,864	47%
Silver	$34,479,188	29%
Gold	$27,488,635	23%
Platinum	$1,253,390	1%
Total	**$120,550,274**	**100%**

Reinsurance by Exchange Status

Wakely analyzed reinsurance amounts for plans bought on and off the exchange. Since the 2018Q1 report, there has been a slight shift in reinsurance distribution towards the on-exchange market. In the 2018Q1 report, approximately 66% of the reinsurance dollars were from plans sold on the exchange. In the 2018Q4 report, nearly 70% of the reinsurance dollars are from individuals that bought plans on the exchange.

Table Seven: Reinsurance Amount by Exchange Status

Exchange Status	Reinsurance Amount	Distribution
On-Exchange	$84,705,293	70%
Off-Exchange	$35,844,981	30%
Total	**$120,550,274**	**100%**

Reinsurance by Plan Type

This section provides reinsurance amounts by plan type. In the Affordable Care Act, individuals and families with incomes between 138% and 400% of the Federal Poverty Limit are eligible for cost-sharing reduction subsidies (CSR) which lower out-of-pocket costs. There are several different levels of CSRs. The first is 73% which reduces the individual's out-of-pocket cost to approximately 27% (= 1 - 73%) of total medical costs. There are other levels of CSR which are not prevalent in Minnesota's market due to Minnesota's Basic Health Plan, MNCare. Finally, there are limited cost-sharing and zero cost-sharing plans for American Indians and Alaska Natives.

Table Eight: Reinsurance Amount by Plan Type[2]

Plan Type	Reinsurance Amount	Distribution
Standard	$108,898,452	90%
Zero Cost Sharing	$407,076	0%
Limited Cost Sharing	$313,954	0%
73% CSR	$10,930,792	9%
Total	**$120,550,274**	**100%**

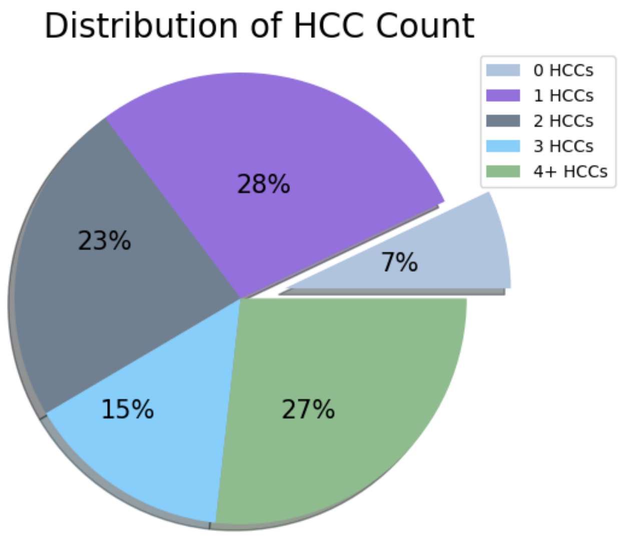
Reinsurance by Claim Spend

Please see Appendix B for reinsurance by claim spend level. Note that this table is not directly comparable to the corresponding table in Minnesota's 1332 Waiver Application because this table is based on 2018 experience without claim runnout. In other words, Appendix B is missing members that have not exceeded the attachment point with claims paid in 2018 but will exceed the attachment point with 2018 incurred claims that are paid in 2019.

[2] Values do not add to 100% because of rounding.

Distribution of HCC Count

Minnnesota carriers provided hierarchical condition categories (HCC) data by individual as part of the Wakely data request. HCCs are used by CMS as part of the risk adjustment process that transfers money in the individual market from carriers that enrolled a healther population to carriers that enrolled a sicker population. An individual is assigned to an HCC based on his or her medical diagnostic history. For example, if an individual fractures his or her hip in an accident, the doctor may code the medical claim with a hip fracture diagnosis code. That diagnosis code then identifies that individual in the *Hip Fractures and Pathological Vertebral or Humerus Fractures* condition category (HCC226). On the other hand, there are diagnosis codes that do not map to an HCC. As a result, even though an individual may have a claim, he or she may not be assigned to an HCC. Individuals can have more than one HCC in a year. Typically, the more HCCs an individual has, the sicker and more costly he or she is. As a general rule of thumb, approximately 20% of the Individual Commercial population is assigned to an HCC. In other words, 80% of the general individual population does not have an HCC. In comparison, only 7% of the reinsurance population does not have an HCC. These individuals may have experienced a tramatic accident with a diagnosis code that is not used in the HCC model or may have diagnosis codes that were not coded correctly. The chart to the right shows the distribution of HCCs for the statewide reinsurance population. Note that the distribution was relatively stable between the 2018Q3 and 2018Q4 reports.



Data Review

Wakely compared the portion of individuals with claims above the attachment point underlying the carrier submitted templates against the claim continuance table located in the actuarial report in Minnesota's 1332 Waiver. The table is based on the 2015 individual market. In the comparison, the actual portion of individuals with claims above the attachment point was slightly lower than the expected portion of individuals with claims above the attachment point. This is likely caused by the underlying carrier data being based on a full year of experience with limited claim runout. For example, the individual-level dataset excludes members that will exceed the attachment point because of claims that are incurred in 2018 but paid in 2019.

Wakely reviewed the list of individuals contained in each of the first four quarterly reports. Reports and claims are cumulative so if an individual is in one report, then he or she should also be included in subsequent reports. There were a few individuals that were not in the 2018Q4 report but were included in the 2018Q1, 2018Q2, or 2018Q3 report. This result is not unexpected since an individual can change enrollee identifier numbers and show up in different quarters under a different enrollee number. In total, these individuals accounted for approximately 0.4% of total reinsurance amounts.

Wakely compared the reinsurance amounts reflected on the claim lag triangles to the Summary Report on Transitional Reinsurance Payments and Permanent Risk Adjustment Transfers reports for benefit years 2015 and 2016. [3] The reinsurance parameters in MPSP and the Federal Transitional Reinsurance program are different so results are not directly comparable; however, each carrier's difference was similar in terms of direction and magnitude. For example, the ratio between the 2015 Federal Transitional Reinsurance and carriers' submitted data using the MPSP parameters was approximately 75% for each carrier. Similarly, the 2016 ratio was approximately 33%. Note that the Federal Transition Reinsurance Program terminated in 2016 so there was no 2017 reinsurance report to compare.

Finally, Wakely compared the 2015 reinsurance in Appendix A to the Section 1332 Waiver Application table to ensure that reinsurance reported by the sources were consistent. Note that 2016 and 2017 experience was not included in the Section 1332 Wavier application.

Cost Sharing Reductions

The Federal Transitional Reinsurance program utilized a complicated formula to reduce a carrier's paid amount to account for the fact that cost-sharing reductions (CSRs) were reflected in plan liability but were reimbursed by the Federal government under a separate program. Since the CSR program ended in 2017, Wakely is assuming that CSR subsidies will not be funded by the Federal government in 2018; therefore, we are not adjusting calculated reinsurance amounts for CSR using the Federal Transitional Reinsurance program methodology. Note that there could be a relatively small portion of plan liability already reimbursed by the federal government due to claims with admission dates prior to the termination of the CSR program and a discharge date after January 1st, 2018. Wakely will work with carriers to ensure that reinsurance payments made to carriers do not exceed the total amount paid by the carrier for any eligible claim pursuant to Minnesota Statute 62E.23.

Disclosures and Limitations

Responsible Actuary. I, Tyson Reed, am responsible for this communication. I am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to issue this report.

Intended Users. This information has been prepared for the sole use of the management of MCHA. Wakely understands that the report may be made public. Distribution to such parties should be made in its entirety and should be evaluated only by qualified users. The parties receiving this report should retain their own actuarial experts in interpreting results. This information is proprietary.

Risks and Uncertainties. The assumptions and resulting estimates included in this report and produced by the modeling are inherently uncertain. Users of the results should be qualified to use it and understand the results and the inherent uncertainty. Actual results may vary, potentially materially, from Wakely's estimates. Wakely does not warrant or guarantee that Minnesota carriers will attain the estimated values included in the report. It is the responsibility of those receiving this output to review the assumptions carefully and notify Wakely of any potential concerns.

[3] https://www.cms.gov/CCIIO/Programs-and-Initiatives/Premium-Stabilization-Programs/index.html

Conflict of Interest. I am financially independent and free from conflict concerning all matters related to performing the actuarial services underlying these analyses. In addition, Wakely is organizationally and financially independent of MCHA.

Data and Reliance. I have relied on others for data and assumptions used in the assignment. I have reviewed the data for reasonableness, but I have not performed any independent audit or otherwise verified the accuracy of the data / information. If the underlying information is incomplete or inaccurate, my estimates and calculations may be impacted, potentially significantly. The information included in the other sections identifies the key data and assumptions.

Subsequent Events. Material changes in state or federal laws regarding health benefit plans may have a material impact on the results included in this report. I am not aware of any additional subsequent events that would impact the results of this analysis.

Contents of Actuarial Report. This document constitutes the entirety of the actuarial report and supersede any previous communications on the project.

Deviations from ASOPs. Wakely completed the analyses using sound actuarial practice. To the best of my knowledge, the report and methods used in the analyses are in compliance with the appropriate ASOPs with no known deviations. A summary of ASOP compliance is listed below:

- ASOP No. 1, Introductory Actuarial Standard of Practice
- ASOP No. 23, Data Quality
- ASOP No. 41, Actuarial Communication

Sincerely,

Tyson Reed

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Minnesota Premium Security Plan

Appendix A - High Claimant Experience in Minnesota Non-Grandfathered Individual Market

Note: MPSP was not in place during 2015 through 2017. Columns labelled Reinsurance in this exhibit represent hypothetical reinsurance as if the MPSP was in place between 2015 and 2017

Attachment Point: $50,000
Coinsurance: 80%
Reinsurance Cap: $250,000

2015 Experience

Cohort Description	Count of Enrollees	Enrollee Distribution	Total Reinsurance With Runnout Thru December 2015	Total Reinsurance with Runnout Thru April 2016	Completion
Cohort One - Enrollees Exceeding Attachment Point Based on Runnout Thru December Not Exceeding Reinsurance Cap by December 2015	3,781	82%	$130,605,997	$149,718,508	1.1463
Cohort Two - Enrollees Exceeding Attachment Point Based on Runnout Thru December Exceeding Reinsurance Cap by December 2015	328	7%	$52,480,000	$52,440,335	0.9992
Cohort Three - Enrollees Exceeding Attachment Point Based on Runnout After January 2016	523	11%	$0	$8,975,908	
Total 2015	**4,632**	**100%**	**183,085,997**	**211,134,750**	**1.1532**

2016 Experience

Cohort Description	Count of Enrollees	Enrollee Distribution	Total Reinsurance With Runnout Thru December 2016	Total Reinsurance With Runnout Thru April 2017	Completion
Cohort One - Enrollees Exceeding Attachment Point Based on Runnout Thru December Not Exceeding Reinsurance Cap by December 2016	3,743	82%	$128,722,764	$144,052,148	1.1191
Cohort Two - Enrollees Exceeding Attachment Point Based on Runnout Thru December Exceeding Reinsurance Cap by December 2016	429	9%	$68,640,000	$68,640,000	1.0000
Cohort Three - Enrollees Exceeding Attachment Point Based on Runnout After January 2017	399	9%	$0	$7,427,177	
Total 2016	**4,571**	**100%**	**197,362,764**	**220,119,325**	**1.1153**

2017 Experience

Cohort Description	Count of Enrollees	Enrollee Distribution	Total Reinsurance With Runnout December 2017	Total Reinsurance With Runnout Thru April 2018	Completion
Cohort One - Enrollees Exceeding Attachment Point Based on Runnout Thru December Not Exceeding Reinsurance Cap by December 2017	2,445	85%	$82,515,170	$90,991,811	1.1027
Cohort Two - Enrollees Exceeding Attachment Point Based on Runnout Thru December Exceeding Reinsurance Cap by December 2017	172	6%	$27,520,000	$27,520,000	1.0000
Cohort Three - Enrollees Exceeding Attachment Point Based on Runnout After January 2018	265	9%	$0	$5,389,066	
Total 2017	**2,882**	**100%**	**110,035,170**	**123,900,877**	**1.1260**

Minnesota Premium Security Plan

Appendix B - Reinsurance by Claim Spend Level

Based on Claims Incurred During 2018 and Paid through December 2018

Incurred Claims					
Low Range	**High Range**	**Enrollee Count**	**Average Incurred Claims Per Enrollee**	**Average Reinsurance Per Enrollee**	**Aggregate Reinsurance**
$50,000	$52,508	166	$51,283	$1,026	$170,369
$52,508	$58,498	332	$55,436	$4,349	$1,443,857
$58,498	$119,795	1,392	$80,800	$24,640	$34,299,204
$119,795	$245,222	569	$165,317	$92,253	$52,492,235
$245,222	$327,784	93	$277,980	$159,835	$14,864,609
$327,784	$374,643	23	$354,044	$160,000	$3,680,000
$374,643	$512,029	49	$433,388	$160,000	$7,840,000
$512,029	$647,250	14	$566,904	$160,000	$2,240,000
$647,250	$9,999,999	22	$1,043,528	$160,000	$3,520,000
Total		**2,660**	**$120,144**	**$45,320**	**$120,550,274**

Note that this table is not directly comparable to the corresponding table in Minnesota's 1332 Waiver Application because this table is based on 2018 experience without claim runnout. In other words, Appendix B is missing members that have not exceeded the attachment point with claims paid in 2018 but will exceed the attachment point with 2018 incurred claims that are paid in 2019.

Average Reinsurance Per Enrollee = min{(Average Incurred Claims - $50,000) x 80%, $160,000)}