



## **Minnesota Individual ACA Market Actuarial Analysis**

Prepared for:

**The Minnesota Council of Health Plans**

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## OVERVIEW

Wakely Consulting Group, LLC (“Wakely”) was retained by the Minnesota Council of Health Plans (The Council) to analyze the current and future individual health insurance environment in the state of Minnesota. The current market has undergone significant premium increases, enrollment declines, health plans losses, and demographic and plan shifts. The Council seeks assistance in understanding the market dynamics and exploring policy changes to create a more stable market.

The scope of this project is limited to assessment of the individual market using readily available data as described in the data section, with specific analysis to include assessment of the impact of the current and potential future Basic Health Plan (BHP), pre-ACA high risk pool, along with assessment and benchmarking of contributors to premium increases.

This document has been prepared to assist The Council and its member plans with analysis that can form the basis for information to be utilized for discussions with legislators as they consider potential policy changes that would impact the individual health insurance market, such as expansion of the basic health plan. Using the information in this report for other purposes may not be appropriate. This report can be shared publicly by the Council in its entirety.

This document contains limited information on the results, data, assumptions, and methods used in our analysis, and satisfies the ASOP 41 reporting requirements. Wakely’s proprietary information in our supporting analysis is not included in this report but was discussed with the Council and its health plan actuaries.

Wakely does not intend to benefit or create a reliance to third parties receiving this report. Any such third parties should review their own data and retain their own experts in understanding this report’s content and in making decisions in any areas covered by this report.

## EXECUTIVE SUMMARY

Wakely’s review included several aspects of the Minnesota market including premium levels, enrollment and plan mix, risk scores, limited aggregated claim data, and publicly available market data. We focused on evaluating Minnesota’s market compared to national benchmarks to determine key differences that may be driving premium increases. Assessment of premium rate adequacy or claim cost evaluation was not within the scope of this project. However, analysis of risk scores was performed to assess relative morbidity compared to other states.

### Key findings:

- Nationally many insurer’s premium rates were inadequate to cover costs for 2014 and 2015. Minnesota’s premiums were also inadequate as evidenced by insurer losses. In addition, it appears Minnesota’s premiums were even more inadequate than many other states in 2014 as

they had the lowest premium rates in the country. Minnesota premium rates were also lower than most states in 2015.

In 2017, Minnesota premiums are now more in line with other states after two years of larger rate increases. We compared premiums in Minnesota against states who expanded Medicaid along with prohibiting transitional policies. Compared to those states, Minnesota premiums are now in the upper-middle range. Nationally, Minnesota silver plan premiums are in a similar range, with the state average 2<sup>nd</sup> lowest silver premium higher than 28 out of 43 states reported.<sup>1</sup>

- Minnesota’s morbidity, as measured by risk scores in 2015, is approximately the same as those states who expanded Medicaid and did not allow transitional policies after adjusting for differences in metal plan mix and age. Minnesota has a slightly higher risk score which indicates a slightly sicker population. Minnesota’s average age is also slightly higher. Since premium rates include some compensation for differences in age, we adjusted for that in the comparison to focus on differences in morbidity and other factors.

<b>Table S.1 – Minnesota Risk Score Comparison To Medicaid Expansion/No Transitional Policy states 2015</b>			
	<b>Minnesota</b>	<b>Medicaid Expansion /No Transitional Benchmark</b>	<b>MN vs Benchmark</b>
Adjusted Risk Score (Silver)	1.36	1.35	0.7%
Estimated Allowable Rating Factor (ARF)*	1.66	1.65	0.5%
<b>Risk Score Difference Net of ARF*</b>			<b>0.2%</b>

\*ARF measures age change and estimated using MN age curve for all applied to prevalence by age band cohort data.

- The impact of Minnesota’s Basic Health Plan (BHP) was not clear in our analysis given limited data. However, we found that enrollees identified by plan selection as being between 200% and 250% of FPL have a 10% lower risk score than the statewide average after adjusting for the age factors. Since these individuals are healthier than average, moving them out of Minnesota’s individual market and into the BHP would potentially increase individual market premiums.

We also reviewed groups of Cost Sharing Reduction (CSR) plan enrollees in the similar benchmark states who were in the lower income categories between 138% and 200% of FPL. This income category was not in Minnesota’s individual market since these individuals would be eligible for the BHP. In the benchmark states, we found that these CSR enrollees had about the same or only slightly higher risk scores compared to the individual market average after adjusting for age.

<sup>1</sup> <https://aspe.hhs.gov/sites/default/files/pdf/212721/2017MarketplaceLandscapeBrief.pdf>

- While Minnesota’s risk pool is comparable to other similar benchmark states after normalizing for age and metal plan mix, the enrollment profile is significantly different from other states and has changed over time. Minnesota has lower exchange enrollment, fewer subsidized enrollees, and a skewed metal plan mix compared to other states.

Table S.2 - Membership Distribution by Metal				
Metal Level	2014		2016	
	Minnesota	Benchmark Similar States	Minnesota	Benchmark Similar States
Gold & Platinum	41%	20%	23%	19%
Silver	30%	46%	24%	50%
Bronze	27%	33%	49%	29%
Catastrophic	2%	2%	4%	1%
Total	100%	100%	100%	100%

**Additional Observations:**

In an attempt to uncover differences in Minnesota and other states, we looked at the data in many different ways. Key observations from our analyses include:

- The increase in risk scores net of metallic mix and age change is 9.9% from 2014 to 2016. We measured the risk scores of the individual market over the last three years, estimating 2016 using partial year data. The gross increase in risk score of 17.2% was partially due to an increase in age of 6.6%.

Table S.3 - Net Change in Risk Score			
	2014 to 2015	2015 to 2016	Cumulative 2014 to 2016
Change in Adjusted Risk Score (Silver Weights)	13.6%	3.1%	17.2%
Change in Demographics (measured by ARF)	3.5%	3.0%	6.6%
Change in morbidity and other*	9.8%	0.1%	9.9%

\*Likely includes coding and data accuracy improvement and increasing duration.

- Comparison of Pre-2014 and Post 2014 risk scores:

Risk scores increased 6% in 2014 over pre-ACA levels with no material change in age. A 14% increase in risk score occurred in 2015 with a 3% increase in age. This pattern appears consistent with a two year transition of Minnesota’s high risk pool into the individual post-ACA single risk pool.

- Minnesota has a greater proportion of children than the benchmark which pulls the average risk score down. On the other hand, Minnesota has a slightly older adult population and slightly higher morbidity which pushes the risk score upward.
- Minnesota appears to have a higher percentage of individuals age 65 and over in 2016 than the benchmark.
- A limited review of Minnesota's claim distribution shows a greater distribution of large claims compared to other benchmarks in 2015.

#### **Recommendations:**

We have the following recommendations based on our analysis:

- We recommend stakeholders consider further analysis of all individuals within the FPL levels impacted by current and potential future BHP policy changes. Analysis should include claim cost and risk score analysis of the current BHP enrollees and the entire subsidy eligible individual population, and analysis of currently uninsured individuals in the impacted income segments. As noted above, our BHP analysis was limited to the subset of enrollees who chose a CSR plan and we did not have other income identifiers. In addition, we recommend scenario modeling that uses varying persistency assumptions for subsidized vs. non-subsidized members to assess the longer term sustainability of the individual market.
- We recommend review of the subsidy structure to assure the subsidy aligns with stakeholder goals to improve the individual market sustainability. Currently we see the subsidy structure favoring older individuals who use subsidy dollars to buy down to a bronze plan.
- We recommend that health plans perform a detailed review of their membership to assess the appropriateness of enrollment in the individual market vs. Medicare.
- We recommend further analysis of the distribution of large claims in conjunction with any assessment of potential policy changes such as risk adjustment or reinsurance changes.

More detail regarding each of these findings and further analyses is contained in the sections below.

## **PROJECT APPROACH**

### **Data Sources, Limitations, and Assumptions**

Health plan members of The Council participating in this analysis are: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, PreferredOne, and UCare. These plans cover the entire individual exchange market and the majority of the off-exchange market and their data has been included in our

analysis. Other carriers are considered to be small enough that exclusion of their data will not significantly impact results.

This project was designed to use readily available summary level data from the participating health plans. The project was focused on addressing three areas of analysis to keep the scope manageable from a time and budget standpoint. Therefore, the data used in our analysis was limited.

The following data was utilized for this analysis:

- 2015 and 2016 Wakely National Risk Adjustment Reporting(WNRAR) data for Minnesota individual health plans
- Wakely National Risk Adjustment Simulation (WNRAS) data for pre-2014 Minnesota individual health plans, including Minnesota Comprehensive Health Association (MCHA), the state's high risk pool
- Aggregate 2015 and 2016 WNRAR data for other states summarized into benchmark categories based on Medicaid expansion and transitional status
- 2014 and 2015 Risk Adjustment Risk Score Summary Reports(RARSS) and Risk Adjustment Transfer Element Extract(RATEE) reports for all health plans
- Cost of Service template data submission from each health plan. This data included 2015 allowed claim dollars by accumulator range. Allowed claims by age were also included for 2014 and 2015. This data was previously provided to the Minnesota Department of Commerce.
- 2014 National Wakely Risk Insight study data summarized for limited benchmarking
- Actuarial Memorandum and Unified Rate Review Templates (URRTs) from 2016 & 2017 individual rate filings
- Minnesota Department of Human Services Medicaid enrollment reports
- CMS Marketplace reports
- CMS Summary Report on Transitional Reinsurance Payments and Permanent Risk Adjustment Transfers for the 2014 and 2015 Benefit Years
- Analysis of nationwide premium rates by Kaiser Family Foundation and the Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation(ASPE)

Data limitations include:

- For consistency in measuring morbidity, most risk scores are calculated using HHS Risk Adjustment Model Factors from 2015 for all years to remove the impact of changes in the factors themselves. Our report will note when 2016 vs 2015 factors are used.
- Risk scores are utilized to assess relative morbidity of various populations. While risk scores generally measure relative morbidity, they do not necessarily reflect the actual expected claim cost for a certain member or categories of members. Evaluation of claim cost or other financial measures was not completed in this analysis.
- Risk score calculations using metal based HHS Model Factors are intended to measure the relative health plan liability for a specific metal level. To attempt to measure relative morbidity and

normalize for shifts within metal levels over time, we have calculated risk scores using standard silver weights for all plans in some situations.

- Since Minnesota did not participate in the WNRAR project during 2014, we used RARSS and RATEE data for 2014 risk scores. RARSS and RATEE data is not at the same level of granularity as WNRAR data so limited comparisons were made.
- Risk score projections are inherently uncertain. WNRAR 2016 data is only partially complete with the latest run using data through July 2016. Wakely projected 2016 risk scores at the metal level for 2016 utilizing the HCC prevalence rates for incomplete unadjusted 2015 and 2016 data. Relative comparisons have been made to illustrate relationships within this report. Completion projections for Minnesota in the WNRAR data were reviewed, however, we developed an alternative projection method for 2016 for greater transparency.
- This report utilizes WNRAR data and processes and the limitations and caveats within the WNRAR quarterly reports should be considered part of this report. Since that report is confidential, we have included the limitations and caveats in Appendix B.
- For confidentiality, we have combined platinum and gold health plan data throughout this report.

## OVERVIEW OF MINNESOTA INDIVIDUAL MARKET

### Medicaid, MinnesotaCare and Basic Health Plan Impact

As part of our assessment of the Minnesota individual market, we have reviewed general information related to Minnesota's public programs for the under 65 population that would impact the available individual commercial market. Minnesota public health programs have historically been more expansive than many other states. Minnesota has had one of the nation's most expansive Medicaid programs, covering many segments of the population, including adults up to 200% of the Federal Poverty Level (FPL), for many years prior to the implementation of the ACA.

The Minnesota Medicaid program is segmented based on the various eligibility requirements with "MinnesotaCare" covering the majority of the adult population between 138% to 200% of FPL and "Medical Assistance" covering adults below 138% and other targeted eligibility categories. The eligibility classifications within MinnesotaCare have changed over the years before 2013 through 2014 with population shifting between MinnesotaCare sub categories and to the Medical Assistance portion<sup>2</sup>, but generally the 2014 implementation of ACA did not materially alter the population eligible for MinnesotaCare with most individuals under 200% of FPL qualifying for some form of the public program. In addition, effective 1/1/15, Minnesota implemented a Basic Health Plan (BHP). The eligibility requirements for the BHP generally align with prior MinnesotaCare requirements and cover individuals

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<sup>2</sup> State Health Access Data Assistance Center, Early Impacts of the Affordable Care Act on Health Insurance Coverage in Minnesota, June 2014 <http://www.shadac.org/publications/early-impacts-affordable-care-act-health-insurance-coverage-minnesota>

up to 200% of the FPL. Legislative reports and information regarding the BHP application to CMS, indicate that most of the impact of the BHP eligibility changes were already implemented before or during 2014. To confirm our understanding, Wakely reviewed high level Minnesota BHP public reports<sup>3</sup> and discussed the expected impact of the 2015 BHP on the individual market with MN individual carriers participating in this study. In those discussions, carriers familiar with MinnesotaCare indicated that there was not a material change in the underlying MinnesotaCare/Medical Assistance population with the advent of the BHP.

Therefore, our analysis assumes the population segments eligible for the commercial individual market continued to be adult individuals above 200% of the FPL both before and after the implementation of ACA in 2014 and the implementation of the BHP in 2015. A summary of the public program enrollment is in Table 1 below as a reference. We did not review any detailed MinnesotaCare or BHP data as the project scope was to evaluate the commercial individual market with available Edge and WNRAR data.

Table 1 Managed Care Enrollment for Medicaid Program					
Public Program <sup>1</sup>	December 2013	December 2014*	December 2015**	September 2016	October 2016***
MinnesotaCare/BHP Total	136,328	79,447	121,068	100,760	87,912
Medical Assistance(MA) Families & Children(under 65)	405,635	673,510	677,102	731,633	712,702
Total both Programs	541,963	752,957	798,170	832,393	800,614

\*2014 shifts from MinnesotaCare to MA

\*\*Driver of growth in MinnesotaCare in 2015 not specified, our understanding is that BHP eligibility requirements were generally in place in 2014 so BHP was not the driver of the growth in enrollment.

\*\*\*Eligibility reconciliation process performed by DHS resulted in drop in enrollment October 2016

The existence of the BHP in Minnesota does impact the size and make-up of the individual market as a whole and makes Minnesota different than most other states. Except for New York, which also has had an expansive public program and has implemented a BHP on 1/1/16, no other state has yet to implement a BHP. With Minnesota's individual market limited to potential enrollees over 200% of FPL, the majority of individuals under 200% which would be highly subsidized through Advanced Premium Tax Credit (APTC) and Cost Sharing Reduction (CSR) plans are not part of the available individual market. In contrast, this highly subsidized segment between 100% and 200% of FPL, makes up a large portion of the enrollment in other states. This report will show risk scores by the available income categories using the CSR indicator when available to model the impact of changes in the BHP using data from other states.

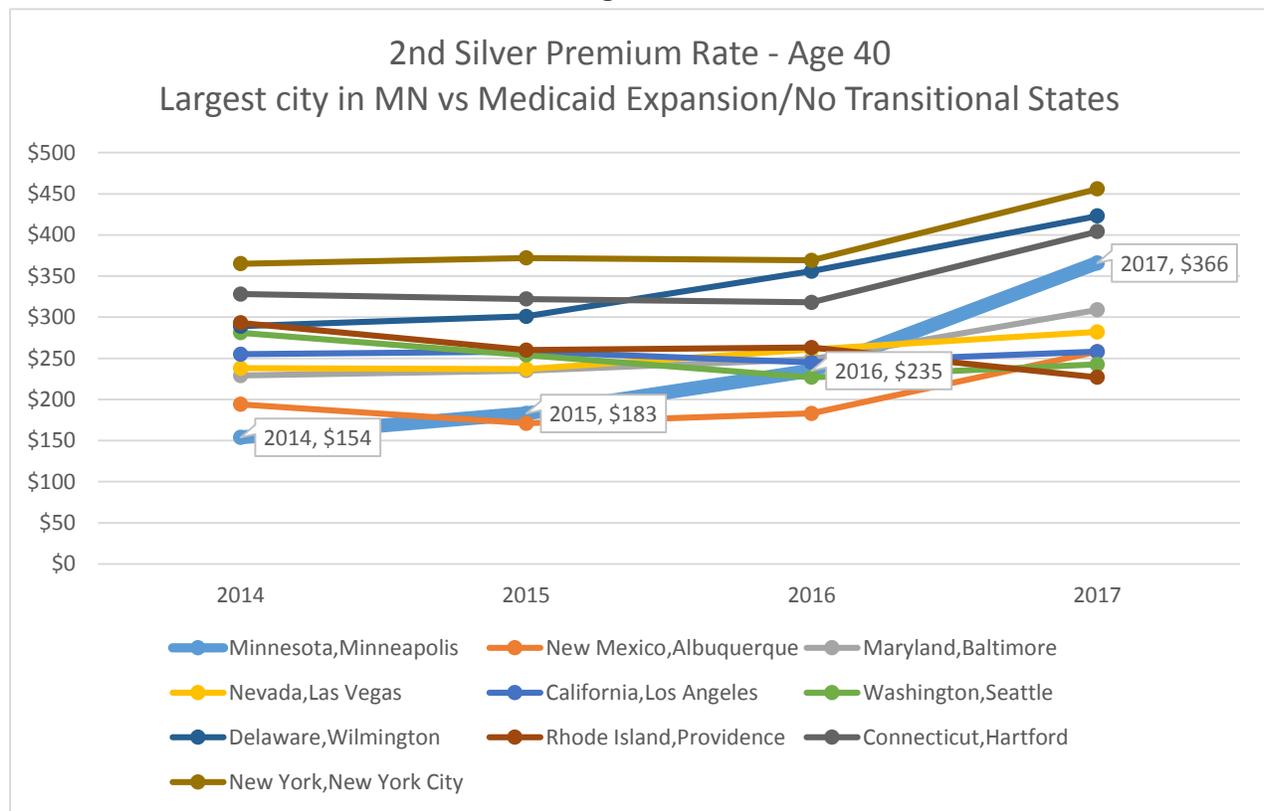
<sup>3</sup> Minnesota Department of Human Services, monthly enrollment summaries

[http://www.dhs.state.mn.us/main/groups/county\\_access/documents/pub/dhs-290621.pdf](http://www.dhs.state.mn.us/main/groups/county_access/documents/pub/dhs-290621.pdf)

## Individual Market Overview – Premiums, Membership, and Subsidies

Minnesota’s ACA individual market has experienced growth and decline over the last 3 years. In 2014, with the first year of ACA, Minnesota had some of the lowest premium rates in the country but rates have increased greater than the average beginning in 2016. Exchange enrollment started slow, health plans have had significant losses, and overall membership began declining in 2016. Membership declines are expected to continue in 2017 with high premium rate increases, withdrawal of BCBS MN, and caps on enrollment growth for other carriers. In 2017, Minnesota average premiums are now higher than 28 other states.<sup>4</sup> Looking at large cities across the country, Minneapolis also ranked 30<sup>th</sup>. When comparing 2017 premiums in Minneapolis to 10 large cities in other states that expanded Medicaid and prohibited transitional policies, Minneapolis is 7<sup>th</sup> highest.

**Figure 1**



Source: Kaiser Family Foundation; <http://kff.org/health-reform/issue-brief/2017-premium-changes-and-insurer-participation-in-the-affordable-care-acts-health-insurance-marketplaces/>

<sup>4</sup> <https://aspe.hhs.gov/sites/default/files/pdf/212721/2017MarketplaceLandscapeBrief.pdf>

While many states have enrollment and financial performance challenges, the enrollment mix and premium change in Minnesota highlights some key differences from other states. MNSure, Minnesota’s state based exchange, has had lower enrollment for individual plans than projected. As shown in Table 2.1, MNSure has had fewer enrollees receiving APTC’s than most other states in the country<sup>5</sup>. These enrollment results are partly driven by the BHP capturing many individuals that would fall into the subsidy category. In addition, historically lower premiums resulting in lower subsidy dollar amounts may have slowed consumer adoption and the perceived value of purchasing on the exchange.

Tables 2.1 and 2.2 illustrate differences in subsidies between Minnesota and nationwide. In 2016, HHS estimates that 62% of individuals nationwide purchase coverage on the Marketplace. In Minnesota, estimates show 28% of individual insured members purchased on the state’s Exchange/ Marketplace in 2016, up from only 17% in 2015. This low exchange enrollment reflects an even lower % of individuals receiving premium subsidies, called Advance Premium Tax Credits or APTCs, with only 18% of individuals receiving a premium subsidy in 2016. This compares to 53% nationwide in 2016.

Table 2.1 2016 Enrollment On vs Off Exchange with Advance Premium Tax Credit(APTC)				
	% on Marketplace	% of Marketplace with APTC	% of Total with APTC	Average APTC
National	62%	85%	53%	\$291
Minnesota	28%	64%	18%	\$203

Table 2.2 2015 vs 2016 Marketplace Purchasers & Premium Tax Credits (APTC’s)						
	2015			2016		
	% w APTC	% CSR	Average APTC	% w APTC	% CSR	Average APTC
National on Marketplace	84%	56%	\$270	85%	57%	\$291
Minnesota on Marketplace	55%	15%	\$160	64%	16%	\$203

Tables 3 through 5 below show member months and percentage of total by year and by metal with 2016 projected through our WNRAR tool for Minnesota. 2016 is projected to have 12% fewer member months than 2015. Minnesota’s individual membership distribution by metal is significantly different than

<sup>5</sup> <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-06-30.html?DLPage=6&DLEntries=10&DLSort=0&DLSortDir=descending>

nationwide where there is a heavier concentration in the silver plans. This is consistent with the low percentage of subsidized purchasers on the exchange and carved out BHP population.

Table 3 Minnesota Member Months by Metal and Year			
Member Months	2014	2015	2016 (Projected)
PLATINUM & GOLD	1,166,000	1,252,000	678,000
SILVER	854,000	782,000	595,000
Silver 200%-250% FPL CSR	Included w Silver	83,000	109,000
BRONZE	748,000	1,148,000	1,464,000
CATASTROPHIC	47,000	68,000	110,000
<b>Total</b>	<b>2,815,000</b>	<b>3,333,000</b>	<b>2,956,000</b>

Table 4 Minnesota Member Month Distribution by Metal and Year			
Member Months	2014	2015	2016 (Projected)
PLATINUM & GOLD	41%	38%	23%
SILVER	30%	23%	20%
Silver 200%-250% FPL CSR	Included w Silver	2%	4%
BRONZE	27%	34%	49%
CATASTROPHIC	2%	2%	4%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 5 Membership Distribution On Vs Off Exchange				
Metal	Minnesota 2016 Total	Minnesota 2016 Off Exchange	Minnesota 2016 On Exchange	National March 2016 On Exchange
PLATINUM & GOLD	23%	25%	16%	8%
SILVER	20%	20%	22%	70%
Silver 200%-250% FPL CSR	3%	0%	13%	Included w Silver
BRONZE	50%	51%	49%	22%
CATASTROPHIC	3%	4%	1%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The distribution of enrollment in the individual market is heavily dependent on the exchange enrollment which in turn is dependent on the premium subsidy. The 2<sup>nd</sup> lowest silver plan sets the premium subsidy depending on age, income, family size, and location. In 2014 and 2015, with lower overall premiums, there was less value in purchasing on the exchange. In 2016 and as premiums increase, the value of purchasing on the exchange becomes greater. However, the way the subsidy works in some situations may drive choices that do not promote market stability by getting younger purchasers in the individual risk pool.

The premium subsidy is determined based on the 2<sup>nd</sup> lowest silver plan but can be used to purchase a less expensive plan. An individual with the same income and location but a different age, receives a different subsidy amount. An older person gets a much better value than a younger person when they use the subsidy to purchase a less expensive plan. See the example in Table 6 below for a Minneapolis resident in 2016. In this example, a 60 year old choosing a bronze plan pays 3.4% of income which is only slightly more than the 2.5% tax penalty for non-purchase. This is in comparison to a 30 year old purchasing the same Bronze plan and paying 6.3% of income, which is 2.5 times the tax penalty.

Table 6 2016 Premium Example for Minneapolis Minnesota - Impact of Subsidy on Plan Choice						
Age	Annual Income	Maximum premium individual pays for 2nd silver	2nd Silver Plan Premium Before Subsidy	Subsidy Dollar Amount	Lowest Price Bronze Plan Before Subsidy	Premium for Lowest Price Bronze Plan (after subsidy)
Age 30	\$30,000	\$208	\$209	\$1	\$158	\$157
Age 50	\$30,000	\$208	\$329	\$121	\$249	\$128
Age 60	\$30,000	\$208	\$500	\$292	\$378	\$86

As described above, the subsidy may drive the purchase behavior differently by age. The individual market in general has had a difficult time nationwide attracting the younger adults. Minnesota’s average age has increased 1.5 years from 2015 to 2016 as shown in Table 7 below. Minnesota’s average age is five years older on exchange compared to off exchange, with the Silver CSR plan members being the oldest cohort followed by the bronze on and off exchange cohorts. Age changes will be discussed further as we discuss morbidity in the next section.

Table 7 Average Age On vs Off Exchange				
Metal	2016 On Exchange	2016 Off Exchange	2016 Total Average Age	2015 Total Average Age
PLATINUM & GOLD	42.9	36.8	37.9	37.3
SILVER	43.4	37.9	39.3	37.8
Silver 200%-250% FPL CSR	47.4	NA	47.4	47.7
BRONZE	44.1	41.8	42.4	41.3
CATASTROPHIC	27.1	22.7	23.1	24.1
<b>Total</b>	<b>44.0</b>	<b>39.0</b>	<b>40.2</b>	<b>38.8</b>

## RISK SCORE ANALYSIS

Wakely reviewed the risk scores of the Minnesota population at various levels of detail with a focus on assessing changes in morbidity over time. Risk scores by metal level and year are shown in Table 8 below. The cumulative change in average risk scores from 2014 to 2016 is 10% as shown in Table 9. Risk scores increased in 2015 and had a slight decrease in 2016. However, membership changes and shifts between metals makes it difficult to assess the underlying morbidity change by looking at average risk scores using the HHS formula from year to year. Risk scores include a factor that reflects induced demand by metal level, with richer benefit plans receiving a higher risk score. This induced demand factor is designed to reflect the health plan’s cost liability but does not represent morbidity. We made additional adjustments to the risk score calculation to illustrate the underlying morbidity change in the following section.

We also show the Allowable Rating Factor (ARF) for each period. This factor represents the average premium pricing factor based on the age distribution of the membership using the Minnesota standard age curve. Changes in the ARF illustrate the change in age of the membership over time that will be compensated for with premium changes.

Risk scores in Table 8 for 2014 and 2015 are unadjusted using claim data through the end of April the following year. 2016 risk scores have been projected using an experience basis of January through July 2016. To project 2016, we first calculated the change in risk scores from partial year 2015 (January through July) to the same partial year period in 2016 (January through July). We applied this relative change to the 2015 calendar year risk scores to project 2016 calendar year scores. Risk scores can change significantly, especially from early in the year to the end of the year, so this projection could change. In addition, we also expect some degree of coding and data improvement over time that could alter the estimates as health plans have enhanced their ability to manage the ACA risk adjustment process. It is important to consider the uncertainty with risk scores and more information regarding caveats and limitations regarding Wakely’s WNRAR analysis is provided in Appendix B.

<b>Table 8</b>			
<b>Minnesota Individual Market Risk Scores by Metal and By Year</b>			
<b>Metal</b>	<b>2014</b>	<b>2015</b>	<b>2016 (Projected)</b>
PLATINUM & GOLD	1.74	2.19	2.80
SILVER	1.06	1.15	1.33
Silver 200%-250% FPL CSR	Included w/ Silver	1.50	1.62
BRONZE	0.71	0.78	0.84
CATASTROPHIC	0.26	0.27	0.23
<b>Total Risk Score</b>	<b>1.23</b>	<b>1.38</b>	<b>1.35</b>
<b>Allowable Rating Factor</b>	<b>1.58</b>	<b>1.63</b>	<b>1.68</b>

<b>Table 9</b>			
<b>Change in Minnesota Individual Market Risk Score</b>			
<b>Risk Score</b>	<b>2014 to 2015</b>	<b>2015 to 2016</b>	<b>Cumulative 2014 to 2016</b>
PLATINUM & GOLD	26%	28%	61%
SILVER	9%	16%	25%
Silver 200-250% FPL CSR	Included w/ Silver	8%	8%
BRONZE	11%	8%	18%
CATASTROPHIC	4%	-16%	-13%
<b>Total Risk Score Change</b>	<b>12%</b>	<b>-2%</b>	<b>10%</b>
<b>Allowable Rating Factor Change</b>	<b>3.5%</b>	<b>3.0%</b>	<b>6.6%</b>

The risk scores in Table 8 above are calculated using the same HHS model factors for all 3 years based on the 2014/2015 model to remove any impact from the change in the 2016 model factors. HHS model factors include adjustments by metal for each Hierarchical Condition Category (HCC) and demographic cohort to include the impact on plan liability due to induced demand. Therefore, total risk scores reflective only of morbidity may be higher or lower depending on the metal mix. To adjust for this additional element, we recalculated scores by applying standard silver HHS factors to each HCC or demographic cohort for all plans depending on the detail of data available. While we have the detail to recalculate 2015 and 2016 scores in this manner, we must make adjustments to 2014 risk scores. The 2014 risk scores were adjusted to reflect silver weights on all plans using 2015 relationships.

Tables 10.1 and 10.2 below show the resulting adjusted risk scores and changes for 2014 through 2016. The adjusted risk scores increased by 17.2% from 2014 to 2016. However, we caution that, while this change in risk scores reflects increasing morbidity, other factors including demographic changes and coding improvement are embedded in the change as well.

<b>Table 10.1 Minnesota Individual Market Adjusted Risk Scores</b>			
<b>Risk Score</b>	<b>2014 Silver Weights</b>	<b>2015 Silver Weights</b>	<b>2016 Projected Silver Weights</b>
PLATINUM & GOLD	1.54	1.95	2.55
SILVER	1.06	1.15	1.33
Silver 200%-250% FPL	Included w Silver	1.50	1.62
BRONZE	0.86	0.95	1.01
CATASTROPHIC	0.38	0.40	0.35
<b>Total</b>	<b>1.19</b>	<b>1.36</b>	<b>1.40</b>

Risk scores have increased in all metals except catastrophic and in aggregate each year. The 2016 risk score is projected to go up in aggregate only 3.1% over 2015 however each metal category is increasing at a significantly higher rate. We anticipate that the enrollees who retained their gold plan despite large premium increases in 2016 are the higher risk. We expect the lower risk gold and silver are shifting to bronze to create an overall morbidity increase in the prior bronze mix.

<b>Table 10.2 Minnesota Individual Market Change in Adjusted Risk Score (with Silver Weights)</b>			
<b>Risk Score</b>	<b>2014 to 2015</b>	<b>2015 to 2016</b>	<b>Cumulative 2014 to 2016</b>
PLATINUM & GOLD	26.2%	31.1%	65.5%
SILVER	8.9%	15.1%	25.4%
Silver 200-250% FPL CSR	Included w Silver	8.4%	8.4%
BRONZE	10.6%	6.4%	17.6%
CATASTROPHIC	4.3%	-10.6%	-6.8%
<b>Total</b>	<b>13.6%</b>	<b>3.1%</b>	<b>17.2%</b>

The 17.2% increase in risk score is not completely due to a change in morbidity. There are several other factors than impact the risk score including demographic changes, coding changes, and changes in the duration of eligibility.

The estimated change in risk scores due to demographic changes is 3.1% for 2014 to 2015 and 3.2% for 2015 to 2016. This is a cumulative impact of 6.4%. Our estimate is based on Wakely claim cost factors

developed from a large national dataset. We also reviewed the ARFs which reflect the age change that would be compensated for in premium rating factors. The ARFs changed by 6.6% from 2014 to 2016. Table 11.1 and 11.2 below shows the ARF and change in ARF by metal and by year.

<b>Table 11.1 Minnesota Individual Market Allowable Rating Factors</b>			
	<b>2014</b>	<b>2015</b>	<b>2016 Projected</b>
PLATINUM & GOLD	1.50	1.57	1.57
SILVER	1.61	1.61	1.65
Silver 200%-250% FPL	Included w Silver	1.92	1.90
BRONZE	1.70	1.74	1.78
CATASTROPHIC	1.01	1.01	1.00
<b>Total</b>	<b>1.58</b>	<b>1.63</b>	<b>1.68</b>

<b>Table 11.2 Minnesota Individual Market Change in Allowable Rating Factor</b>			
	<b>2014 to 2015</b>	<b>2015 to 2016</b>	<b>Cumulative 2014 to 2016</b>
PLATINUM & GOLD	4.3%	0.1%	4.5%
SILVER	0.0%	3.0%	3.0%
Silver 200-250% FPL CSR	Included w Silver	-1.4%	-1.4%
BRONZE	2.3%	2.5%	4.9%
CATASTROPHIC	0.4%	-1.1%	-0.7%
<b>Total</b>	<b>3.5%</b>	<b>3.0%</b>	<b>6.6%</b>

The change in risk scores from 2014 to 2016 after adjusting for metallic mix and ARF is 9.9% as shown in Table S.3 below. This change represents a combination of morbidity and other factors. In addition to the impact of demographic changes, improvements in the speed and comprehensiveness of coding also impacts risk score comparisons over time. With the risk adjustment payment transfer mechanism in place since 2014, health plans are continually improving their ability to capture diagnosis codes to maximize risk scores. This dynamic is embedded in the risk scores so not all of the increase over time is attributable to a morbidity increase. The degree of coding improvement and the impact on the overall risk score is highly variable and we have not quantified that amount within this analysis.

The average duration of enrollees in each year also impacts risk score comparisons over time. Increasing duration from year to year generally increases the risk score. We did not have the detail to calculate a

comparable duration estimate with the 2014 data. However, based on other national data, we expect the average duration in 2014 was generally shorter than 2015, with a greater lag in members coming in during the first year of the exchanges.

Table S.3 - Net Change in Risk Score			
Metal Level	2014 to 2015	2015 to 2016	Cumulative 2014 to 2016
Change in Adjusted Risk Score (Silver Weights)	13.6%	3.1%	17.2%
Change in Demographic/ARF	3.5%	3.0%	6.6%
Change in morbidity and other*	9.8%	0.1%	9.9%

\*Likely Includes coding and data accuracy improvement and increasing duration.

## BENCHMARKING RISK SCORES AND DEMOGRAPHICS TO OTHER STATES

Wakely compiled risk and demographic profiles of Minnesota individual market enrollees in calendar year 2015 and YTD July 2016 using health plan provided WNRAR data. We compared these profiles to the same periods in other WNRAR participating states. For confidentiality, we combined WNRAR participating states with similar key market positions regarding Medicaid expansion and transitional policies. There are three buckets of WNRAR participating states used for benchmarking, categorized as follows:

- Medicaid expansion states that prohibited transitional policies – this benchmark would be the most similar to Minnesota although Medicaid expansion was not as expansive in these states as in Minnesota.
- Medicaid expansion states that allowed transitional policies – states where transitional/pre-2014 underwritten policies have been extended have a materially different profile than states where pre-2014 policies were absorbed within the ACA individual single risk pool.
- Non-Medicaid expansion states include individuals between 100% and 138% within the ACA individual single risk pool creating a materially different profile compared to states where these individuals fall under the Medicaid program. Transitional policies that remain outside the ACA single risk pool also impact the risk pool in these states.

### Data Limitations and Assumptions

The data used for benchmarking is based on WNRAR submitted data. This data has the following limitations:

- Silver plans purchased on exchange in one of three Cost Sharing Reduction (CSR) variations are the only indicator available related to income level. These plans are noted within the WNRAR data as Silver 1(<150% FPL 94% Actuarial Value), Silver 2(150%-200% FPL 87% Actuarial Value), and Silver 3(200%-250% FPL 73% Actuarial Value).

- Due to MinnesotaCare/Basic Health Plan covering individuals with incomes less than 200% of FPL, the Silver 3(200%-250% FPL 73% AV) plan is the only bucket with enrollees in Minnesota. The CSR plans must be purchased on exchange with a premium based on the standard silver plan. Based on the limited enrollment shown in Minnesota in the Silver 200%-250% FPL CSR variation and the large concentration of bronze plans, we anticipate that some subsidy eligible individuals that fall within the 200%-250% of poverty level may have chosen to utilize their available premium subsidy dollars to purchase a bronze plan for less premium than purchasing the Silver 200%-250% FPL CSR plan. This CSR plan has benefits that are only slightly enhanced above standard silver benefits with a 73% Actuarial Value compared to 70% for standard silver benefits.
- 2014 data is not shown in this section since Minnesota did not participate in WNRAR during that time. We will show some 2014 comparisons based on limited Edge data in a later section.
- 2016 WNRAR data shown for Minnesota and benchmark comparisons in this section has not been completed so this data should be used for insight on relative comparisons only.
- The Exchange indicator in the benchmark data was not a validated field so we are not showing those comparisons.
- Wakely did not verify or audit the data submitted by health plans in Minnesota or the benchmark states. We did reasonableness check on the data but ultimately relied on the health plans to provide accurate data. If the data provided is inaccurate, the results of this analysis is likewise inaccurate.

## Benchmarking Results

Minnesota’s membership distribution is significantly different than the Wakely benchmarks. As discussed previously, the impact of the BHP and low exchange and subsidy enrollment appears to drive the differences. States that did not expand Medicaid show a high concentration of members in the Silver 100-150% CSR plan compared to the Medicaid Expansion states since individuals between 100% and 138% of FPL would be eligible for the exchange in non-Expansion states. Minnesota has a much higher percentage of Platinum and Gold members in 2014 compared to all benchmarks and that differential continues although somewhat tightens in 2016 when the increasing bronze membership is the biggest difference.

Table S.2 - Membership Distribution by Metal				
Metal Level	2014		2016	
	Minnesota	Medicaid Expansion / No Transitional States	Minnesota	Medicaid Expansion / No Transitional States
Gold & Platinum	41%	20%	23%	19%
Silver	30%	46%	24%	50%
Bronze	27%	33%	49%	29%
Catastrophic	2%	2%	4%	1%
Total	100%	100%	100%	100%

### Risk Score Comparisons to benchmarks

In aggregate, 2015 Minnesota risk scores are approximately 2% higher than the aggregate risk score in the Medicaid Expansion/No Transitional states. However, the distributions by metal is significantly different. After removing the impact of the induced demand factors by metal, Minnesota’s 2015 risk score is 0.7% higher than the Medicaid Expansion/No Transitional benchmark.

To compare Minnesota to the benchmark, we also adjusted for differences in age using the ARFs. Since states can set different age curves for premium pricing, any comparison between ARFs needs to consider those variations. Table 12.1 illustrates three versions of the ARFs. The first ARF is shown using the state specific age curves for Minnesota as well as other states in the benchmarks. New York does not allow variation in premium by age so the NY ARF distorts the benchmark average. Therefore, we also estimated alternative ARFs using the federal standard for all data and using the Minnesota standard. The Minnesota age curve mirrors the federal except has a higher child factor. These estimated ARFs are for comparison between Minnesota and the benchmarks only.

Table 12.1 Allowable Rating Factors Comparison		
Allowable Rating Factors	Minnesota	Medicaid Expansion No Transitional
<b>ARF Actual *</b>	1.63	1.51
<b>ARF estimated federal curve **</b>	1.60	1.61
<b>ARF estimated MN curve ***</b>	1.66	1.65

\*Uses state specific Allowable Rating Factors / age rating curves in WNRAR data

\*\* ARF was estimated using federal age curve applied to prevalence by age band cohort data. Due to data limitations with these adjustments, age banded cohorts from prevalence data were based on assumed average age at the end of the eligibility period. This estimated ARF calculation was performed consistently across MN and Benchmarks. This differs from the actual HHS ARF calculation.

\*\*\*ARF was estimated using the Minnesota age curve applied to prevalence by age band cohort data. Same limitations above.

Table 12.2 below illustrates all adjustments. After adjusting the risk scores for both metal mix and age differences, Minnesota’s risk score is approximately the same as the most similar benchmark.

Table 12.2 – Minnesota Risk Score Comparison to Benchmark 2015			
	Minnesota	Medicaid Expansion / No Transitional States	MN vs Benchmark
<b>Risk Score</b>	1.39	1.36	2.0%
<b>Adjusted Risk Score (Silver)</b>	1.36	1.35	0.7%
<b>Estimated Allowable Rating Factor(ARF)*</b>	1.66	1.65	0.5%
<b>Risk Score Difference Net of Estimated ARF*</b>			<b>0.2%</b>

\*ARF was estimated using MN age curve applied to prevalence by age band cohort data.

For 2016, we reviewed partial year unadjusted data. Based on this limited data, it appears Minnesota is emerging similarly to the most comparable benchmark. However, with the significant shifts by metal and declining membership in Minnesota, 2016 may complete differently.

There are some notable changes in the demographics and comparisons to the benchmarks that may impact overall claim costs and/or eventual risk scores shown in Table 12.3. The proportion of adults over age 60 is increasing in Minnesota and in each of the benchmark buckets. However, the proportion of adults over age 60 has increased by more in Minnesota than the other benchmark state buckets. Specifically, we note the increase in the age 65+ cohort which is embedded within the age 60+ cohort in the risk score calculation. We have seen federal initiatives regarding outreach to Medicare eligible enrollees regarding enrollment in the exchange. We are unclear if this is an issue and suggest further research and consideration given the generally higher claim costs for older individuals and the guidelines regarding coverage in the individual market for enrollees who are eligible for Medicare.

Table 12.3 Demographic Components in Minnesota 2015 Full Year and 2016 Partial Year Data		
	Minnesota 2015	Minnesota 2016
% Adults	78%	81%
% Children	20%	18%
% Infants	1.5%	1.1%
% Female Adults	50%	50%
Estimated Average Adult Age	46.6	47.3
% Adults age 60-64	21.3%	21.6%
% Adults age 65+	0.5%	2.7%

**Adult Diagnosis Grouping with most impact (positive and negative) to risk score**

Table 13 shows the diagnosis groupings using the HHS Hierarchical Condition Category (HCC) groups that have the biggest impact to differences in the 2015 Minnesota adult risk score compared to the benchmark with states with Medicaid expansion without transitional policies. The impact of the HCC is a combination of the difference in prevalence (shown as the percentage of members falling in the category) as well as the HHS weight (projected costs/severity) of the condition. Green denotes that the condition exerts downward pressure on Minnesota’s risk score and Minnesota’s prevalence is lower than the benchmark states. Light red denotes that the condition exerts upward pressure on Minnesota’s risk score and Minnesota has higher prevalence than the benchmark states. Also shown

is the percentage of members without any HCC. These members have no HCC that is part of the CMS risk score calculation but not necessarily without any diagnosis or illness burden.

<b>Table 13</b>			
<b>Membership Distribution by Hierarchical Condition Category(HCC) 2015</b>			
<b>Hierarchical Condition Categories from HHS Risk Adjustment Model</b>		<b>HHS Risk Weight</b>	<b>Minnesota 2015 Prevalence</b>
G15	Asthma; Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	0.9	4.10%
G01	Diabetes	1.1	4.70%
HCC088	Major Depressive and Bipolar Disorders	1.6	4.70%
HCC037	Chronic Hepatitis	2.1	0.10%
HCC012	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	3.1	1.20%
G18	Completed Pregnancy	3.3	1.30%
HCC056	Rheumatoid Arthritis and Specified Autoimmune Disorders	3.4	0.90%
G09	Drug Psychosis; Drug Dependence	3.5	0.40%
HCC156	Pulmonary Embolism and Deep Vein Thrombosis	4.2	0.50%
HCC001	HIV/AIDS	5.3	0.20%
HCC002	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	12.3	0.30%
INT_GROUP_H	Severe Illness Interaction Group -- High	12.4	0.30%
HCC008	Metastatic Cancer	25.5	0.40%
HCC251	Stem Cell, Including Bone Marrow, Transplant Status/Complications	34.1	0.05%
<b>NO_HCC</b>	<b>Not Grouped in Any HCC</b>		<b>78.80%</b>

### Member Duration

We reviewed average duration for Minnesota compared to the national benchmarks for 2015. We were specifically looking for indicators of shorter durations as those could indicate individuals coming into the state for care due to the low premium rates and then terminating once care is received. We reviewed Minnesota average duration at the state level as well as at the rating area level. Minnesota's average duration is longer than the benchmark averages. In addition, we saw no specific pattern of longer or shorter durations within the rating areas.

## ASSESSMENT OF THE BASIC HEALTH PLAN IMPACT

To assess the impact of the BHP, we reviewed data in the most similar benchmark state for the CSR plans. Silver 100-150% FPL (94% AV) and 150%-200% FPL (87% AV) CSR plans in the benchmark states have relatively higher than average risk scores for the states. We adjusted the risk scores to remove induced demand using the HHS formula with Silver weights. Members in these CSR plans are older and have a higher risk score than the state average. After normalizing for the standard allowable rating factors using the federal age curve, the 100% to 200% FPL CSR plans have very similar adjusted risk scores to the average of the total insured population in the benchmark states.

If these relationships by income level are similar in Minnesota, this data indicates that there would not be significant change in the overall single risk pool premium by including or excluding these income based cohorts under 200% of FPL since these appear to have average morbidity after adjusting for the allowed premium age factors. However, this analysis reflects one year of data and was not evaluated over multiple years to assess the impact of persistency and selection on a subsidized population. We anticipate that increased subsidization of this population as premium rates increase, would promote favorable selection from this cohort compared to the less subsidized individuals since the subsidy buffers the enrollee from the rate increase. We would expect higher income individuals to exhibit anti-selection as premiums increase significantly, with those who utilize healthcare continuing in the single risk pool and healthier individuals without subsidies leaving.

We also reviewed the comparative risk scores for the 200% to 250% FPL CSR cohort in Minnesota shown in Table 14 below. This small CSR cohort has a risk score approximately 10% lower than the average after normalizing for the premium age factor. Based on this limited data, it would follow that moving this lower risk 200%- 250% FPL cohort to MinnesotaCare would potentially increase premium rates in the individual market.

Our analysis is limited due to using CSR levels as a proxy for income. The CSR indicator is the only data element obtained by Wakely that represents income levels. Without further analysis of the entire population of individuals in the BHP eligible income cohorts, not just those that purchased a CSR plan, it is not possible to assess the impact of expansion of the Basic Health Plan. We recommend that stakeholders evaluating the feasibility of changes to the BHP consider further analysis that would include the current MinnesotaCare population along with insured and uninsured applicable income segments of the population. We also recommend modeling scenarios of BHP income criteria utilizing varying persistency assumptions of subsidized and non-subsidized members to assess the longer term sustainability of the individual market.

Table 14 Comparison of CSR Relative Morbidity Minnesota 2015 WNRAR Data				
	column a	column b	c=b/a	d=c/Total c
Metal Level	Estimated ARF*	Adjusted Risk Score (Silver)	Risk Score Normalized for ARF - Risk Score/ARF	Relative Morbidity - Normalized Risk Scores to Total After ARF
Platinum & Gold	1.53	1.90	1.24	1.47
Silver Standard	1.57	1.15	0.73	0.87
Silver 100-150% FPL CSR	NA	NA	NA	NA
Silver 150-200% FPL CSR	NA	NA	NA	NA
Silver 200%-250% FPL CSR	1.95	1.50	0.77	<b>0.90</b>
Bronze	1.71	0.95	0.55	0.65
Catastrophic	0.98	0.40	0.40	0.48
Total	<b>1.60</b>	<b>1.36</b>	<b>0.85</b>	<b>1.00</b>

\*ARF estimated using federal age curve and WNRAR Prevalence Data, does not represent actual ARF.

## PRE AND POST ACA 2014 INDIVIDUAL MARKET RISK SCORE COMPARISONS

As part of our assessment of Minnesota’s current individual market, we also reviewed risk scores from the Pre-2014 individual market. In early 2013, Wakely performed the National Risk Adjustment Simulation study (WNRAS) similar to the WNRAR project to provide health plans information prior to their first ACA single risk pool filings effective 1/1/2014. This study used summary level diagnosis and enrollment data provided by health plans for July 2011 through June 2012. Wakely modeled this pre-ACA data as closely as possible to HHS risk score parameters known as of January 2013. HHS has updated risk score calculations and data specific requirements since this study was developed and the data utilized is 4 to 5 years old. In addition, prior to 2014, the standardized actuarial value based metallic tiers did not exist so the data is not entirely comparable with post 2014 data but provides insight into ACA single risk pool changes.

Minnesota’s high risk pool, the Minnesota Comprehensive Health Association (MCHA), was included in this pre-ACA study. The MCHA existed for many years prior to ACA implementation. Wakely’s 2013 study compared the risk scores of the MCHA population to the pre ACA block.

Table 15 shows the 2011/2012 pre-ACA risk scores separately for the MCHA population, non-MCHA pre-ACA, and Total all pre-ACA. The risk scores of the MCHA population were significantly worse than the average as we would expect for a high risk pool. MCHA members were also significantly older than the average individual market enrollee as shown by the ARF.

Table 15 Risk Scores Pre ACA Individual Market (Silver weights) 2011/2012 data						
	MCHA		Pre-ACA Excluding MCHA		Total All individual Pre-ACA Market	
	Member Months	Risk Score	Member Months	Risk Score	Member Months	Risk Score
Adults	286,000	3.11	2,033,000	1.09	2,320,000	1.34
Children	27,000	1.50	728,000	0.35	755,000	0.39
Infants	2,000	4.47	44,000	1.65	46,000	1.79
<b>Total</b>	<b>315,000</b>	<b>2.98</b>	<b>2,805,000</b>	<b>0.91</b>	<b>3,121,000</b>	<b>1.12</b>
Allowable Rating Factor	1.98		1.53		1.58	

We compare the pre-ACA risk scores with the 2014 and 2015 single risk pool risk scores in Table 16. Beginning 1/1/14, MCHA enrollees could voluntarily move to an ACA plan and all MCHA plans were terminated as of 12/31/14. Health plans interviewed indicate that approximately two thirds of the MCHA members moved in 2014 with the remaining one third moving effective 1/1/15. It is expected that these members have entered the ACA single risk pool with the sickest of those entering effective 1/1/15 although we do not have data to confirm actual movement of these members.

Risk scores increased 6% in 2014 with no change in ARF. A larger risk score increase of 14% occurred in 2015 with a 3% increase in ARF. This pattern would be consistent with a two stage movement of the MCHA population.

Table 16 Minnesota Individual Market Adjusted Risk Scores(Silver Weights)				
	Total Pre-ACA Market	2014*	2015*	2016* Projected
Member Months	3,121,000	2,815,000	3,332,000	2,956,000
Total Risk Score	1.12	1.19	1.36	1.40
Allowable Rating Factor	1.58	1.58	1.63	1.68

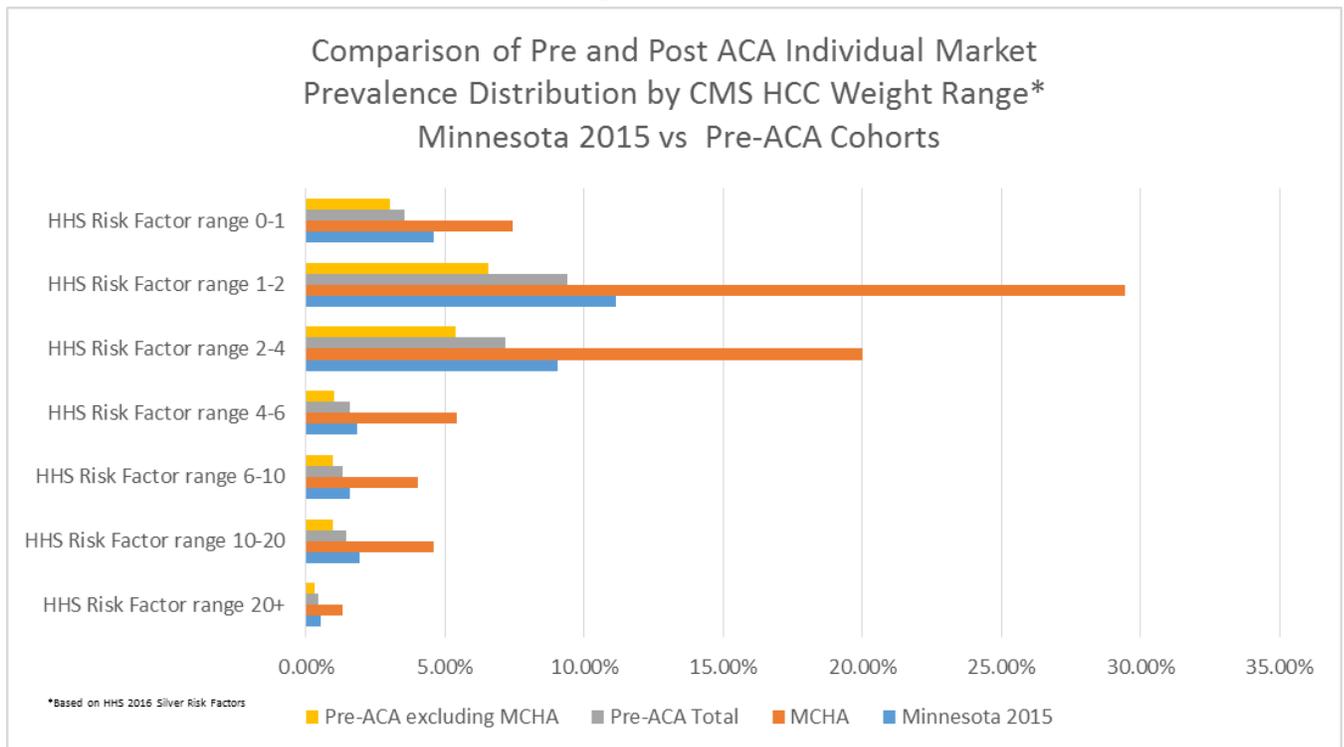
\*2014 through 2016 excludes Grandfathered enrollees estimated between 250,000 and 300,000 member months and declining each year.

We compared the prevalence of conditions between the 2015 individual enrollees and the pre-ACA enrollees. Table 17 shows the diagnosis groupings using HHS HCC groups that have the biggest impact on differences in the 2015 Minnesota adult risk score compared to the pre-ACA Minnesota market. Green denotes that the condition exerts downward pressure on Minnesota’s 2015 risk score compared to pre-ACA scores and the 2015 prevalence is lower than the pre-ACA market. Light red denotes that the condition exerts upward pressure on Minnesota’s 2015 risk score and 2015 prevalence is higher than the pre-ACA market. Also shown is the percentage of members without any HCC in both populations. These members have no HCC that is part of the CMS risk score calculation but not necessarily without any diagnosis or illness burden.

Table 17 Top Drivers of Minnesota 2015 vs Pre-ACA Risk Scores Membership Distribution by Hierarchical Condition Category (HCC)						
Hierarchical Condition Categories sorted by Condition Risk Weight (Severity)		HHS Risk Weight	2015 Minnesota	Pre-ACA Total	MCHA	Pre-ACA excluding MCHA
G15	Asthma and Chronic Obstructive Pulmonary Disease	0.9	4.06%	3.15%	6.38%	2.69%
G01	Diabetes	1.1	4.68%	3.66%	15.88%	1.94%
HCC088	Major Depressive and Bipolar Disorders	1.6	4.72%	4.21%	9.82%	3.42%
HCC142	Specified Heart Arrhythmias	3.1	1.18%	0.93%	2.53%	0.70%
G18	Completed Pregnancy	3.3	1.27%	1.01%	0.78%	1.04%
HCC001	HIV/AIDS	5.3	0.20%	0.26%	1.71%	0.06%
G11	Paraplegia and Traumatic Complete Lesion Dorsal Spinal Cord	10.1	0.02%	0.03%	0.10%	0.02%
HCC183	Kidney Transplant Status	10.6	0.08%	0.10%	0.54%	0.04%
G13	Respiratory Arrest, Failure and Shock	12.1	0.27%	0.19%	0.60%	0.13%
HCC002	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	12.3	0.30%	0.15%	0.49%	0.10%
INT_GROUP_H	Severe Illness Interaction Group -- High	12.4	0.27%	0.13%	0.34%	0.10%
G10	Quadriplegia and Traumatic Complete Lesion Cervical Spinal Cord	14.3	0.02%	0.03%	0.12%	0.02%
HCC034	Liver Transplant Status/Complications	16.5	0.02%	0.03%	0.13%	0.01%
HCC008	Metastatic Cancer	25.5	0.37%	0.32%	0.83%	0.25%
G14	Heart Assistive Device, Artificial Heart and Heart Transplant	37.3	0.01%	0.02%	0.07%	0.01%
HCC184	End Stage Renal Disease	42.0	0.07%	0.05%	0.19%	0.03%
NO_HCC	Not grouped in any HHS HCC category		78.8%	82.0%	53.6%	86.0%

We also show prevalence by HHS Risk Factor range which reflects the relative severity and anticipated health plan liability for each HCC. Some HCC's are lower severity and generally higher frequency (e.g. risk factors <4) and other HCC's are higher severity with relatively low frequency (e.g. risk factors 4+). The chart below shows the distribution by cohort by range of severity. Minnesota's 2015 population has a higher prevalence of members in each of the severity ranges than the Pre-ACA total market. The MCHA cohort, as expected, has the highest prevalence in all ranges. See Appendix A for a listing of the HCC's within each Risk Factor range.

**Figure 2**



## CLAIM COST DISTRIBUTION BENCHMARKING

Wakely compiled the individual market data submitted to the Minnesota Department of Commerce by the issuers participating in the study to explore other drivers. Allowed claim dollars categorized by annual accumulation ranges were provided. The distribution of claims and members within each range was developed. This distribution was compared to aggregate individual market data from the 2014 National Wakely Risk Insight (WRI) study. The comparison data included over one million lives in over 24 states.

The WRI study used calendar year 2014 data. The Minnesota health plans provided 2015 data for our comparison. The average PMPM allowed claim was similar between the two datasets and we scaled the 2014 WRI data slightly to match the Minnesota 2015 PMPM. We did not normalize the data other than this PMPM scaling. There are other differences in the data, including differences in the average enrollment duration of members underlying the two sources. Since the duration would potentially impact

the overall accumulated claims at the member level, we see this as a material difference in the comparison that needs to be considered.

The Minnesota claim distribution showed a greater portion of the total claims being above \$100,000 than the WRI 2014 benchmark data. For Minnesota, claims for members with over \$100,000 in annual claims were 25% of the total, which was a larger percentage than that shown in the benchmark data. Minnesota also has a larger overall number of claimants (members with at least \$1.00 in allowed claims) than the benchmark data.

As mentioned above, this data was not normalized and covered different time periods. Therefore, we were not able to draw any solid conclusions regarding Minnesota’s claim distribution. We recommend that additional data be gathered and further study conducted to more completely evaluate these relationships.

Table 18 Minnesota 2015 Allowed Claim Distribution		
Member Annual Claims	% of Total Allowed Claims	% of Total Members
0 Dollars		19.0%
\$1-\$1000	3%	38.6%
\$1,000-\$5000	13%	26.5%
\$5000 to \$10,000	10%	6.4%
\$10,000 to \$20,000	14%	4.6%
\$20,000-\$50,000	21%	3.3%
\$50,000-\$100,000	15%	1.0%
\$100,000 +	25%	0.6%

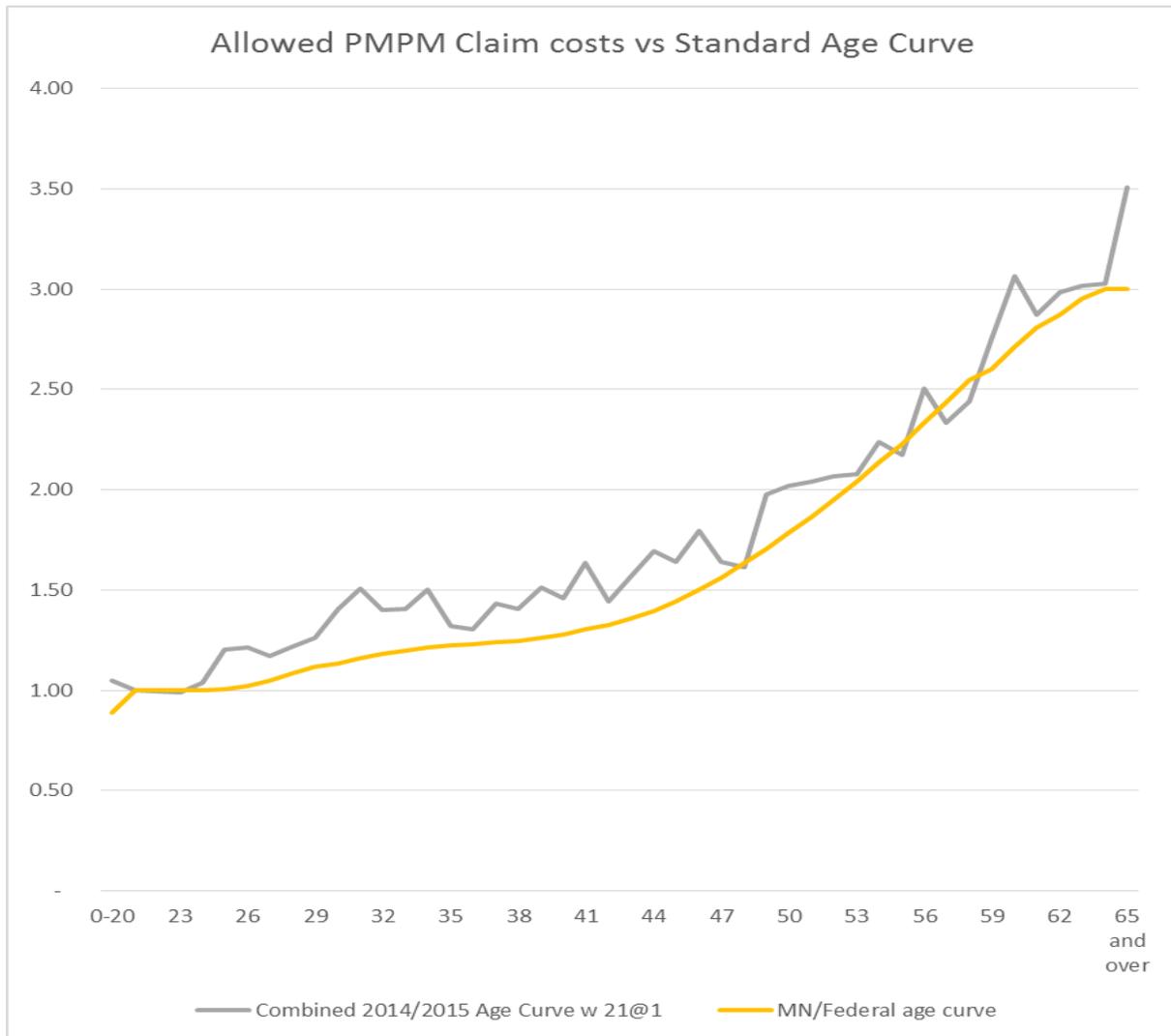
We also reviewed the WNRAR prevalence data to see if there was indication that HCCs with higher weights (and therefore higher expected costs) had a higher prevalence in Minnesota compared to the benchmarks. We grouped the HCCs by the 2016 HHS Silver risk adjustment weights. Generally there does appear to be a slightly higher prevalence for those HCC groupings that have higher weights in Minnesota in 2015. We caution that conclusions on this finding would need additional study.

**Cost distribution by age**

The Minnesota Department of Commerce template also contained allowed claims by age for 2014 and 2015. Wakely compared the aggregate age distribution for 2014 and 2015 combined with the standard Minnesota age curve, which is the same as the federal curve except for a higher factor (0.89) for children. The claims cost curve was set to equal the standard curve at age 21. We understand some states are

considering modifications to the age curve in the future so we provide this comparison as a point of discussion only and not as a recommended curve.

**Figure 3**



## CONCLUSION

This analysis includes many facets of the Minnesota individual market. However, we recommend further analysis in several areas as discussed within the report. We note risk scores are not the sole drivers of claim costs and further analysis of detailed claim data would be required to fully assess drivers of the claim cost portion of Minnesota’s premium rate increases.

## DISCLOSURES AND LIMITATIONS

**Responsible Actuary.** I, Lynda Johnson, am the actuary responsible for this communication. I am a Member of the American Academy of Actuaries and an Associate 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 use of the Minnesota Council of Health Plans. We understand that this report may be shared with legislators and other stakeholders in the state of Minnesota to assist with discussions regarding the individual market sustainability.

**Risks and Uncertainties.** The assumptions and resulting estimates included in this report and produced by the model 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 our estimates. Wakely does not warrant or guarantee the projected values included in the report.

**Conflict of Interest.** I am financially independent and free from conflict concerning all matters related to performing the actuarial services underlying this analysis. In addition, Wakely is organizationally and financially independent to The Council.

**Data and Reliance.** We have relied on others for data and assumptions used in the assignment. We have reviewed the data for reasonableness, but have not performed any independent audit or otherwise verified the accuracy of the data/information. If the underlying information is incomplete or inaccurate, our estimates may be impacted, potentially significantly. A list of data and assumptions provided by others is shown on page 7 of this report.

**Subsequent Events.** There are no known relevant events subsequent to the date of information received that would impact the results of this report.

**Contents of Actuarial Report.** This document and the supporting exhibits constitute the entirety of the actuarial report and supersede any previous communications on the project.

**Deviations from ASOPS.** Wakely completed the analysis using sound actuarial practice. To the best of my knowledge, the report and methods used in the analysis are in compliance with the appropriate Actuarial Standards of Practice (ASOP) with no known deviations.

### Actuarial Standards of Practice

We have followed all applicable ASOPs. The following ASOPs were particularly relevant to our work and some of the issues we dealt with that are covered by the ASOP were as follows:

- ASOP No. 23, Data Quality
- ASOP No. 41, Actuarial Communications

- ASOP No. 45, The Use of Health Status Based Risk Adjustment Methodologies

### **ASOP 23 (Data Quality)**

Previous sections of this report document the data sources, reliances, and adjustments to the data. A review of data, limitations and conflicts are discussed in the letter above.

#### *Process the Actuary Followed to Evaluate the Data*

Wakely reviewed all data items used to prepare this report for reasonableness, asked The Council or its member health plans about any seemingly erroneous data, and received resolution to all concerns.

#### *Limitations, Unresolved Concerns or Significant Bias due to Uncertainty about the Data Quality or Defects in the Data*

There were no known limitations, unresolved concerns or significant bias of the actuarial work product due to issues with the quality of the data.

#### *Conflicts*

A blank template of report data was distributed to The Council for release from their member plans prior to release of the populated report. There were no known conflicts that arose from complying with applicable law, regulation, or binding authority.

### **ASOP 41 (Actuarial Communications)**

This report is consistent with the guidance in ASOP 41.

### **ASOP 45 (The Use of Health Status Based Risk Adjustment Methodologies)**

We relied on Wakely National Risk Adjustment Reports and staff for risk scores included in this report.

## APPENDIX A

### HHS Risk Factor Descriptions

HHS Risk Factor Ranges Used in Figure 2			
HCC	HCC Description	HHS Risk Factor Range	2016 HHS Model Risk Weights (Silver)
HCC113	Cerebral Palsy, Except Quadriplegic	HHS Risk Factor range 0-1	0.050
HCC112	Quadriplegic Cerebral Palsy	HHS Risk Factor range 0-1	0.795
G15	Asthma; Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	HHS Risk Factor range 0-1	0.871
HCC090	Personality Disorders	HHS Risk Factor range 0-1	0.994
HCC102	Autistic Disorder	HHS Risk Factor range 0-1	0.994
HCC103	Pervasive Developmental Disorders, Except Autistic Disorder	HHS Risk Factor range 0-1	0.994
HCC057	Systemic Lupus Erythematosus and Other Autoimmune Disorders	HHS Risk Factor range 1-2	1.066
HCC097	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes	HHS Risk Factor range 1-2	1.073
G01	Diabetes	HHS Risk Factor range 1-2	1.120
G17	Miscarriage	HHS Risk Factor range 1-2	1.139
HCC120	Seizure Disorders and Convulsions	HHS Risk Factor range 1-2	1.305
HCC063	Cleft Lip/Cleft Palate	HHS Risk Factor range 1-2	1.348
HCC013	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors	HHS Risk Factor range 1-2	1.368
HCC088	Major Depressive and Bipolar Disorders	HHS Risk Factor range 1-2	1.590
HCC089	Reactive and Unspecified Psychosis, Delusional Disorders	HHS Risk Factor range 1-2	1.590
HCC227	Pathological Fractures, Except of Vertebrae, Hip, or Humerus	HHS Risk Factor range 1-2	1.782
G12	Muscular Dystrophy; Multiple Sclerosis	HHS Risk Factor range 1-2	1.993
HCC037	Chronic Hepatitis	HHS Risk Factor range 2-4	2.077
HCC162	Fibrosis of Lung and Other Lung Disorders	HHS Risk Factor range 2-4	2.143
G02A	Mucopolysaccharidosis; Metabolic Disorders; Endocrine Disorders	HHS Risk Factor range 2-4	2.160
G16	Chronic Kidney Disease, Severe (Stage 4, 5)	HHS Risk Factor range 2-4	2.248
HCC036	Cirrhosis of Liver	HHS Risk Factor range 2-4	2.252
HCC217	Chronic Ulcer of Skin, Except Pressure	HHS Risk Factor range 2-4	2.354
HCC094	Anorexia/Bulimia Nervosa	HHS Risk Factor range 2-4	2.560

HHS Risk Factor Ranges Used in Figure 2			
HCC	HCC Description	HHS Risk Factor Range	2016 HHS Model Risk Weights (Silver)
HCC096	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes	HHS Risk Factor range 2-4	2.723
HCC048	Inflammatory Bowel Disease	HHS Risk Factor range 2-4	2.831
HCC047	Acute Pancreatitis/Other Pancreatic Disorders and Intestinal Malabsorption	HHS Risk Factor range 2-4	2.834
HCC087	Schizophrenia	HHS Risk Factor range 2-4	2.852
INT_GRO UP_M	Severe Illness Interaction Group -- Medium	HHS Risk Factor range 2-4	2.855
HCC075	Coagulation Defects and Other Specified Hematological Disorders	HHS Risk Factor range 2-4	3.015
HCC142	Specified Heart Arrhythmias	HHS Risk Factor range 2-4	3.073
HCC012	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	HHS Risk Factor range 2-4	3.117
G04	Osteodystrophies; Congenital/Developmental Skeletal and Connective Tissue Disorders	HHS Risk Factor range 2-4	3.262
G18	Completed Pregnancy	HHS Risk Factor range 2-4	3.288
HCC056	Rheumatoid Arthritis and Specified Autoimmune Disorders	HHS Risk Factor range 2-4	3.373
HCC130	Congestive Heart Failure	HHS Risk Factor range 2-4	3.391
G09	Drug Psychosis; Drug Dependence	HHS Risk Factor range 2-4	3.471
HCC111	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease	HHS Risk Factor range 2-4	3.478
HCC146	Ischemic or Unspecified Stroke	HHS Risk Factor range 2-4	3.665
HCC151	Monoplegia, Other Paralytic Syndromes	HHS Risk Factor range 2-4	3.724
HCC038	Acute Liver Failure/Disease, Including Neonatal Hepatitis	HHS Risk Factor range 4-6	4.225
HCC156	Pulmonary Embolism and Deep Vein Thrombosis	HHS Risk Factor range 4-6	4.229
HCC149	Cerebral Aneurysm and Arteriovenous Malformation	HHS Risk Factor range 4-6	4.331
HCC004	Viral or Unspecified Meningitis	HHS Risk Factor range 4-6	4.868
G08	Disorders of the Immune Mechanism	HHS Risk Factor range 4-6	5.257
HCC115	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	HHS Risk Factor range 4-6	5.290
HCC001	HIV/AIDS	HHS Risk Factor range 4-6	5.302
HCC011	Colorectal, Breast (Age < 50), Kidney, and Other Cancers	HHS Risk Factor range 4-6	5.482

HHS Risk Factor Ranges Used in Figure 2			
HCC	HCC Description	HHS Risk Factor Range	2016 HHS Model Risk Weights (Silver)
HCC132	Unstable Angina and Other Acute Ischemic Heart Disease	HHS Risk Factor range 4-6	5.555
HCC254	Amputation Status, Lower Limb/Amputation Complications	HHS Risk Factor range 4-6	5.679
HCC035	End-Stage Liver Disease	HHS Risk Factor range 4-6	5.825
HCC046	Chronic Pancreatitis	HHS Risk Factor range 4-6	5.849
HCC110	Spinal Cord Disorders/Injuries	HHS Risk Factor range 6-10	6.068
HCC010	Non-Hodgkin's Lymphomas and Other Cancers and Tumors	HHS Risk Factor range 6-10	6.097
HCC150	Hemiplegia/Hemiparesis	HHS Risk Factor range 6-10	6.155
HCC018	Pancreas Transplant Status/Complications	HHS Risk Factor range 6-10	6.616
HCC135	Heart Infection/Inflammation, Except Rheumatic	HHS Risk Factor range 6-10	6.891
HCC045	Intestinal Obstruction	HHS Risk Factor range 6-10	6.952
G03	Necrotizing Fasciitis; Bone/Joint/Muscle Infections/Necrosis	HHS Risk Factor range 6-10	7.120
HCC003	Central Nervous System Infections, Except Viral Meningitis	HHS Risk Factor range 6-10	7.353
HCC121	Hydrocephalus	HHS Risk Factor range 6-10	7.806
HCC154	Vascular Disease with Complications	HHS Risk Factor range 6-10	8.230
HCC163	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	HHS Risk Factor range 6-10	8.429
HCC118	Multiple Sclerosis	HHS Risk Factor range 6-10	8.764
HCC226	Hip Fractures and Pathological Vertebral or Humerus Fractures	HHS Risk Factor range 6-10	9.873
HCC006	Opportunistic Infections	HHS Risk Factor range 6-10	9.969
G07	Acquired Hemolytic Anemia; Sickle cell; Thalassemia Major	HHS Risk Factor range 10-20	10.065
G11	Paraplegia; Traumatic Complete Lesion Dorsal Spinal Cord	HHS Risk Factor range 10-20	10.085
HCC122	Non-Traumatic Coma, Brain Compression/Anoxic Damage	HHS Risk Factor range 10-20	10.227
HCC145	Intracranial Hemorrhage	HHS Risk Factor range 10-20	10.519
HCC183	Kidney Transplant Status	HHS Risk Factor range 10-20	10.642
HCC131	Acute Myocardial Infarction	HHS Risk Factor range 10-20	11.100
HCC253	Artificial Openings for Feeding or Elimination	HHS Risk Factor range 10-20	11.306
HCC009	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	HHS Risk Factor range 10-20	11.394

HHS Risk Factor Ranges Used in Figure 2			
HCC	HCC Description	HHS Risk Factor Range	2016 HHS Model Risk Weights (Silver)
HCC159	Cystic Fibrosis	HHS Risk Factor range 10-20	11.747
G13	Respiratory Arrest; Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes	HHS Risk Factor range 10-20	12.082
HCC153	Atherosclerosis of the Extremities with Ulceration or Gangrene	HHS Risk Factor range 10-20	12.194
HCC002	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	HHS Risk Factor range 10-20	12.334
INT_GRO UP_H	Severe Illness Interaction Group -- High	HHS Risk Factor range 10-20	12.433
HCC042	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis	HHS Risk Factor range 10-20	13.049
G06	Myelodysplastic Syndromes and Myelofibrosis; Aplastic Anemia	HHS Risk Factor range 10-20	13.686
G10	Quadriplegia; Traumatic Complete Lesion Cervical Spinal Cord	HHS Risk Factor range 10-20	14.307
HCC023	Protein-Calorie Malnutrition	HHS Risk Factor range 10-20	15.444
HCC034	Liver Transplant Status/Complications	HHS Risk Factor range 10-20	16.547
HCC008	Metastatic Cancer	HHS Risk Factor range 20-40	25.486
HCC251	Stem Cell, Including Bone Marrow, Transplant Status/Complications	HHS Risk Factor range 20-40	34.067
G14	Heart Transplant; Heart Assistive Device/Artificial Heart	HHS Risk Factor range 20-40	37.284
HCC158	Lung Transplant Status/Complications	HHS Risk Factor range 20-40	37.388
HCC125	Respirator Dependence/Tracheostomy Status	HHS Risk Factor range 40+	40.014
HCC041	Intestine Transplant Status/Complications	HHS Risk Factor range 40+	40.976
HCC184	End Stage Renal Disease	HHS Risk Factor range 40+	42.036
HCC066	Hemophilia	HHS Risk Factor range 40+	46.145

## Appendix B

### Wakely National Risk Adjustment Reporting (WNRAR) - Caveats and Limitations

The risk adjustment estimates within this report for Minnesota and Benchmark states are inherently uncertain for many reasons, including the following:

1. Health plans may further enhance data completeness and accuracy. Health plan results will be affected by changes in their own data capture and also the data captured by other health plans participating in their state / market.
2. EDGE Server data may for other reasons not be consistent with the data issuers submitted to Wakely.
3. Not all health plans in each state and market participated in the study. Benchmark state groups were built from participant states only.
4. A distributed approach was used where each health plan submitted only summary level output from a distributed model. For privacy, timing and other reasons, Wakely did not receive detailed claims data. Therefore, our review of data issues and the reasonability of the output were limited. If the data supplied by issuers were incorrect or inconsistent – then that will affect the results from this study.
5. Completion estimates are inherently uncertain.
6. Members new to insurance coverage may have more or less healthcare needs in their early eligibility periods compared to historically insured members. This may cause our completion estimates and projections using partial year data to be less accurate than error measurements may imply.
7. The federal risk adjustment methodology is not perfect and introduces additional uncertainty when used to measure relative morbidity and risk. In addition to inherent uncertainties in the model, our interpretation of the model may not be perfect. We have identified potential issues with the model and communicated those issues to HHS. Where model parameters or methodology are not clear or appear to be erroneous, we have made decisions on what we believe to be the most appropriate approach. Actual implementation may be different than we have assumed.
8. The results of the Phase II (Wakely Simulation) study and 2014 Wakely risk adjustment reporting indicate that renewal patterns in the market are important. Issuers are contemplating different renewal strategies and these strategies will affect risk adjustment transfers. The project uses renewal information provided by participants in order to make appropriate adjustments to risk score forecasts. There is inherent uncertainty around whether or not certain individuals (transitional, grandfathered, etc.) will actually renew into ACA compliant plans in the calendar year.