Humana Health Plan, Inc.
Kentucky
HIOS Identification: 15411

This filing is for the Individual market, with an effective date of 1/1/2017.

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Purpose:

The purpose of this actuarial memorandum is to provide supporting justification to the Unified Rate Review template (URRT) with the goal of demonstrating compliance with state law and federal market rating rules, as well as reasonableness of any proposed rates.

In addition, this actuarial memorandum provides required actuarial certifications related to:

• the methodology used to calculate the AV Metal Value for each plan;

• the appropriateness of the essential health benefit portion of premium upon which advanced payment of premium tax credits (APTCs) are based;

• the development of the Index Rate in accordance with Federal regulations, and the development of plan specific premium rates using allowable modifiers to the Index Rate; and

• the geographic rating factors, which reflect differences only in the costs of delivery (which can include unit cost and provider practice pattern differences) and not differences in population morbidity by geographic area.

This filing should be used for no other purposes.

Please note that, to the best of my knowledge, this filing complies with current regulations and guidance. However, to the extent that laws, rules, or guidance change after the submission of this filing, amending this filing may be necessary.

This memorandum was prepared by a qualified actuary, and is intended to be reviewed by a qualified actuary.

The memorandum has three primary sections:

I. URRT Projection Factor Explanation

II. Reasons for Rate Changes

III. Further Explanation of Compliance with Single Risk Pool Requirements

The URRT Projection Factor Explanation walks through the key factors used in developing the projected base 2017 allowed claims, credibility manual and applicable credibility weighting, paid to allowed ratio to determine the paid PMPM claim basis, risk adjustment assumption to adjust paid claims, and the administrative expenses, risk and profit, and taxes and fees used in developing the single risk pool premium.

The Reasons for Rate Changes section explains the rate change drivers between 1/1/2016 and 1/1/2017.

This actuarial memorandum accommodates rates developed for products new to the market in 2014 or later.

The overall annual average rate change from 1/1/2016 to 1/1/2017 associated with this filing is 33.7%.

Finally the memorandum concludes with a section describing the Company's compliance with single risk pool requirements. This includes discussion on the single risk pool, index rate (also market adjusted and plan adjusted index rates), calibration, consumer adjusted premium rates, actuarial values, membership projections, and a few other items that are prescribed by the memorandum instructions.

Special Note:

The single risk pool premium displayed in Worksheet 1 of Part I varies from the Company's actual single risk pool premium by $0.05 due to rounding requirements within the template. The actual single risk pool premium for the Company is $367.67.

I. URRT Projection Factor Explanation

Experience Period Premium and Claims

The experience period used as a starting point is calendar year 2015 for premium, membership and claims. Additional details about the data used follows below.

Paid Through Date:		2/29/2016	Member Months:	151,156
Earned Premiums:	$	43,628,879		
Estimated MLR Rebates:	$	-		
2015 Estimated Risk Adjustment:	$	755,601		
Premium Net of Rebates/Risk Adj:	$	44,384,480		

Methodology for estimated rebates: Rebates are the year-end accrual for 2015. The estimate was based on actual claims through the end of 2015. The 2015 rebates are based on three years' worth of data, where appropriate. Expense adjustments allowed under the rebate rules are estimated based on expense experience.

Methodology for estimated Risk Adjustment: Please see the later section entitled "Experience Period Risk Adjustment & Reinsurance Adjustments" for detail on how this was calculated.

	Allowed Claims	Incurred Claims
Claims that were processed through the issuer's claim system	$ 56,152,842	$ 43,661,774
Claims that were processed outside the issuer's claim system	$ 10,952,337	$ 7,840,133
Claims incurred but not paid as of paid through date	$ 2,125,130	$ 1,764,208

The processed claims are claims incurred in 2015 and paid through 2/29/2016. The allowed amount comes directly from the claims system after eligibility and network discounts are applied.

To estimate incurred claims, reserve cells are categorized at the product and type of service detail level, by process month. Development methods with various averaging techniques are utilized. The most commonly utilized averaging technique relies on a six-month average of historical completion factors excluding the high and low factors in a given process month. Smoothing techniques are employed, including weekday and seasonality adjustments. Changes in claim volume are included in these estimates by adjusting for pended claims.

For each month of incurral, the incurred but not reported amount equals the incurred claims estimate minus claims paid to date. Follow-up studies, including monthly historical reserve restatement analyses, are regularly performed to test the accuracy of the reserving methodology and to suggest possible improvements. Allowed but not paid claim estimates are developed using a similar approach.

Benefit Categories

The Benefit Categories are defined as follows:

• Inpatient Hospital: Includes non-capitated facility services for medical, surgical, maternity, mental health and substance abuse disorder, skilled nursing, and other services provided in an inpatient facility setting and billed by the facility.

• Outpatient Hospital: Includes non-capitated services for surgery, emergency room, lab, radiology, therapy, observation and other services provided in an outpatient facility setting and billed by the facility. The Outpatient Hospital benefit category uses a combination of both visits and services to determine the utilization per 1,000. For items such as Outpatient Surgery and Emergency Room, where multiple services are rendered and can be billed together, visits are used for the measurement units. For single items that can be billed separately, such as Outpatient Therapy or MRI, services are used for the measurement units.

• Professional: Includes non-capitated primary care, specialist, therapy, laboratory, radiology, and other professional services not billed by the facility. The Professional benefit category uses a combination of both visits and services to determine the utilization per 1,000. For items such as Primary Care or Specialist Office visits, where multiple services are rendered and can be billed together, visits are used for the measurement units. For single items that can be billed separately, such as Therapy or MRI, services are used for the measurement units.
• Other Medical: Includes non-capitated ambulance, home health care, DME, prosthetics, supplies, vision exams, dental services and other services. The Other Medical benefit category uses a combination of both visits and services to determine the utilization per 1,000. For items such as Home Health visits, where multiple services are rendered and can be billed together, visits are used for the measurement units. For single items that can be billed separately, such as DME, services are used for the measurement units.
• Capitation: Includes all services provided under one or more capitated arrangements.
• Prescription Drug: Includes drugs dispensed by a pharmacy. Costs are net of rebates received from drug manufacturers, as required.

Projection Factors

This actuarial memorandum accommodates rates developed for products new to the market in 2014 or later.
The table below lists a summary of components of the change in index rate and development of the 2017 single risk pool premium.

Following a summary of the projection components, we will walk through each item, how it impacts 2017 index rates, and the quantification.

2015 to 2017 Projection Factor URRT Components, Supporting Math, and Corresponding Cell Locations

Item:		Value:	Worksheet 1 Cell Location:
Starting Point: 2015 Experience Allowed Claims PMPM by Benefit Category		$458.00	H24:H29
Allowed Claim Adjustments			
x (1 + Morbidity Adjustment) [A]……		0.870	J24:J29
x (1 + Other Adjustment)			K24:K29
Changes in Benefits [B]……	0.997		
Changes in Demographics [C]……	0.882		
Network Impacts [D]……	0.963		
Total Other Adjustment……		0.846	
x (1 + Change in Trend) [E]……		1.141 [1]	L24:M29
Total Adjustments from 2015 to 2017 Base Experience Allowed Claims……		0.841	
2017 Projected Issuer Allowed Claims		$385.36	Q30
Credibility Manual 2017 Projected Allowed Claims [F]		$0.00	T30
Credibility Weight [G]		100.0%	Q32
Weighted Average 2017 Allowed Claims		$385.36	V32
Paid to Allowed Adjustment to convert to Paid Claims [H]……		64.8%	V33
2017 Projected Paid Claims		$249.71	
Adjustments to Paid Claims to Derive Appropriate Premium			
x (1 + Risk Adjustment) [I]……		1.093	
÷ (1 - Administrative Expense, Profit and Risk, Taxes and Fees) [J]……		0.742	T40:T42
Result: 2017 Single Risk Pool Premium		$367.72 [2]	V43

[1]Two years of trend, 6.8% annually

[2]Single Risk Pool Premium shown on Worksheet 1 of Part I deviates from actual single risk pool premium due to rounding requirements within the template.

-13.0% **Changes in the Morbidity of the Population Insured [A]**

The non-grandfathered individual block of business for Humana Health Plan, Inc. in Kentucky is comprised of membership on both ACA-compliant plans and previously underwritten transitional plans. The combination of these two blocks of business represents neither a homogeneous set of risks nor the expected risk for the ACA business covered by this particular filing. Accordingly, we have removed all transitional plans from the experience base for purposes of 2017 ACA pricing development.

Since we must start with all non-grandfathered experience, per URRT instructions, we apply an adjustment of 6.3% to the starting allowed claims to reflect this removal. This adjustment is also included as part of the 'Population Risk Morbidity' component on Worksheet 1 of the URRT and reflects the multiplicative difference in experience period allowed claims PMPM, with and without the non-ACA transitional policies included.

To estimate the change in the morbidity of the ACA-compliant plans from 2015 to 2017, for each of 2015 and 2017, the relationship between the projected risk scores for this issuer were compared to those of the market, along with the resulting projected risk transfer payments. Based on the changes in the relative risk between this issuer and the market from the experience period to the pricing period, the resulting change in the morbidity/claims impact was calculated. If the gap in the risk level between this issuer and the market is projected to close between the experience period and the projected period, this resulted in a positive morbidity adjustment (i.e. the risk level is migrating towards the market) and vice versa. For details regarding how the risk scores and transfer payments are projected, please see the section on risk adjustment.

-0.3% **Changes in Benefits [B]**

This impact covers two separate adjustments. The first adjustment reflects the changes in benefits available to membership during the projection period, relative to the experience period. These changes represent modifications to the contract language to reflect various items, including changes in the state's EHB benchmark plan.
Benefit changes are valued by modeling the change in allowed claims for a particular change in coverage, divided by the total pool of allowed claims to determine a percent impact for each benefit change.
The main driver of benefit change for 2017 is the inclusion of coverage for hearing aids.

The second adjustment reflects the expected impact of induced utilization in the projection period, relative to the experience period. In this context, induced utilization refers to the impact on utilization due to member behavioral changes related to the richness of plan benefits. This metric does not include the impact of health status.
The induced utilization assumption of -1.2% was developed by comparing the expected plan mix in 2017 against the 2015 experience.
This approach captures the marginal difference in induced utilization between the two periods.

The impact for each benefit component is as follows:

Benefit Changes	0.9%
Induced Utilization	-1.2%
Total Changes in Benefits	-0.3%

-11.8% **Changes in Demographics [C]**

Age & Gender: This factor accounts for the impact to allowed claims with respect to the changes in demographics between the base 2015 experience period and the expected demographic mix in 2017. The change was determined by using a nationwide allowed claim PMPM by age and gender. These PMPM amounts were weighted by the issuer-specific actual 2015 and expected 2017 distributions by age and gender. The 2017 distribution was developed by combining current membership on this legal entity with future sales, which are assumed to follow the statewide demographic distribution.

Area: The geographic distribution of membership is expected to change from the distribution in the 2015 experience period. Costs by area were weighted by the specific 2015 membership distribution and the projected 2017 distribution by area. The difference between these weighted cost amounts produce the area impact. Note that age and gender were held constant in this process.

Tobacco: This factor accounts for the impact to allowed claims with respect to the expected change in distribution of tobacco users from 2015 to 2017. Tobacco users have an assumed 10% increase in claim costs. To determine the claim impact of the change in tobacco users, the following formula was utilized:

$$\frac{((1.0 * \% \text{ 2017 Non-tobacco User}) + (1.10 * \% \text{ 2017 Tobacco User}))}{((1.0 * \% \text{ 2015 Non-tobacco User}) + (1.10 * \% \text{ 2015 Tobacco User}))}$$

Tobacco user percentages were based on CDC's Behavioral Risk Factor Surveillance Branch data on the distribution of tobacco users by age by state. These tobacco user percentages were weighted by the issuer-specific 2015 distribution of membership and the expected 2017 distribution by age to arrive at the percentage of tobacco users for each period.

The impact for each demographic component is as follows:

Age and Gender	3.2%
Area	-14.6%
Tobacco	0.0%
Total Changes in Demographics	-11.8%

-3.7% **Network Impact [D]**

This percent change represents the impact to the allowed claims because of the presence of high value networks on products in many markets. These networks were first introduced in 2014 and experienced a high out-of-network utilization rate. While the 2015 experience shows an improving rate of out-of-network utilization over the prior year, claim process changes became effective mid-2015 and the savings are not fully realized in the 2015 year experience. This percent change represents the expected changes in network utilization behavior that will improve in 2017 as compared to 2015.

14.1% **Trend Factors: Cost & Utilization [E]**

10.1% **Cost Trend:**

The primary cost trend component is Provider Price Index (PPI), and it captures pure unit cost changes, calculated using the same basket of services each period, due to price/contract negotiations and provider distribution changes.

Professional and other medical cost trends are developed based on historical area specific cost trends from Humana's data. Inpatient hospital and outpatient services are calculated from Humana contracting information historically. Future cost trends are developed based on expected changes in Humana's contracts.

Pharmacy cost trends are developed based on historical brand, generic, and specialty drug trends from Humana's data. Future cost trends are developed based on expected changes in these pharmacy contracts. These contractual impacts will be applicable to all members regardless of risk class.

Other components are added to the provider price index trend to develop the total cost trend provided. These include the following:

- Influenza: Captures the impact of cost trend due to influenza which is identified by ICD-9 and ICD-10 codes, and pneumonia which is identified using DRG codes. This also includes the change in cost for pharmacy treatment and vaccination of influenza.
- Catastrophic Claims: Captures changes in the cost of catastrophic claims. Catastrophic claims are calculated on a PMPM basis and compared year over year to determine trend. Catastrophic claims are calculated using a threshold of $70,000 PMPM. It is assumed in the forecasted months that this category regresses to the mean and therefore has little to no impact.
- Health Technology Pipeline (HTP): Captures the cost impact of new health technologies and procedures. An external consulting firm researches new technologies and develops per member per month impacts. These impacts are customized to Humana's business based on membership and coverage policy.

This describes the development of the core cost trend. All impacts from healthcare reform have been removed and are included in the "Population Risk/Morbidity" and "Other" trend sections to prevent double counting of any impacts.

Health Cost Category	PPI (i)	Influenza (ii)	Catastrophic Claims (iii)	HTP (iv)	Annualized Cost Trend Totals*
Inpatient	3.8%	0.1%	-0.1%	0.1%	3.9%
Outpatient	3.4%	0.0%	0.0%	0.1%	3.6%
Physician	1.1%	0.0%	0.0%	0.1%	1.3%
Other Services	1.1%	0.0%	0.1%	0.1%	1.3%
Capitation	3.0%	0.0%	0.0%	0.0%	3.0%
Pharmacy	12.0%	0.0%	0.0%	3.7%	16.1%
Annualized Cost Trend Totals = (1 + i)(1 + ii)*(1 + iii)*(1 + iv) -1					

3.7% **Utilization Trend:**

Using Humana's Trend Quantification and Projection model, a baseline trend is developed using Humana's historical medical claims data from 2008 – 2015. The historical baseline trend is developed by removing all known impacts to allowed trend such as demographics, geography, duration, customer changes, benefit changes, influenza, new health technologies, and changes in pertinent days. An economic regression model, based on consumer sentiment, housing prices, employment, personal disposable income, hospital construction, and high-tech medical equipment spend, is then fit to this historical baseline data to project the future block of business baseline trend for 2016 and 2017.

Other components are added to the baseline trend to develop the total utilization trend provided. These include the following:

- Influenza: Captures the impact of unit trend due to influenza which is identified by ICD-9 and ICD-10 codes, and pneumonia which is identified using DRG codes. This also includes the change in utilization for pharmacy treatment and vaccination of influenza.
- Health Technology Pipeline (HTP): Captures the utilization impact of new health technologies and procedures. An external consulting firm researches new technologies and develops per member per month impacts. These impacts are customized to Humana's business based on membership and coverage policy.
- Pertinent Days: Captures changes in the calendar, recognizing that health care utilization varies by day of the week and reporting periods contain varying weekday mix and count. This impact is developed through the use of an internal model which is uploaded with Humana's claims data.

This describes the development of the core utilization trend. All impacts from healthcare reform have been removed and are included in the “Population Risk/Morbidity” and “Other” trend sections to prevent double counting of any impacts.

Health Cost Category	Baseline (x)	Influenza (xi)	HTP (xii)	Pertinent Days (xiii)	Annualized Utilization Trend Totals*
Inpatient	0.8%	0.0%	0.1%	-0.1%	0.8%
Outpatient	4.4%	0.0%	0.1%	-0.2%	4.4%
Physician	2.1%	0.0%	0.1%	-0.3%	1.9%
Other Services	-1.0%	0.0%	0.1%	-0.1%	-1.0%
Capitation	0.0%	0.0%	0.0%	0.0%	0.0%
Pharmacy	0.0%	0.0%	0.3%	-0.3%	0.0%
Annualized Utilization Trend Totals = (1 + x)(1 + xi)*(1 + xii)*(1 + xiii) -1					

Total Trend:

The cost trend used to project 2017 allowed claims for Humana Health Plan, Inc. in Kentucky is 4.9% annually, or 10.1% for two years.
The utilization trend used to project 2017 allowed claims for Humana Health Plan, Inc. in Kentucky is 1.8% annually, or 3.7% for two years.
The combined cost and utilization trend therefore is 6.8% annually, or 14.1% for two years.

Items [F], [G], [H], [I], [J] are delineated in their own sections on the pages to follow per memorandum instructions.

- [F] Credibility Manual commentary is in the 'Credibility Manual Rate Development' section.
- [G] Credibility weight is discussed in the 'Credibility of Experience' section.
- [H] Paid to Allowed Ratio commentary is in the 'Paid to Allowed Ratio' section.
- [I] Risk adjustment commentary is in the 'Projected Risk Adjustment PMPM' section.
- [J] Administrative expenses, risk and profit, and taxes and fees are in the 'Non-Benefit Expenses and Profit & Risk' section.

Credibility Manual Rate Development [F]

Source and Appropriateness of Experience Data Used, Adjustments Made to the Data, Inclusion of Capitation Payments

Humana Health Plan, Inc. in Kentucky experience is fully credible and therefore no credibility manual is required.

Credibility of Experience [G]

Humana determines full credibility based on analyzing historical experience and utilizing a 95% confidence interval that required actual results will be within 5% of expected.
ACA-compliant policies were determined to require 120,000 member months of experience for full credibility.

Although the experience period includes both transitional and ACA-compliant policies, the experience from the transitional policies is not considered in the rate development. Therefore, credibility of the experience is determined based on the remaining member months of ACA-compliant policies.

ACA-compliant experience member months: 136,859

The partial credibility weight methodology utilizes the following equation: square root(member months in experience period/full credibility member months).
Based on the 136,859 ACA-compliant member months, the credibility weight for the base experience is 100.0%.

Paid to Allowed Ratio [H]

The anticipated paid to allowed ratio over the projection period is based on a combination of: (1) an analysis of 2015 paid and allowed claims experience, and (2) expected impacts of fixed fee leveraging between the 2015 experience base and the 2017 pricing period.

Using 2015 nationwide experience, paid to allowed ratios are calculated for each plan, separated by metal tier and suite and normalized for demographic mix differences. The resulting set of 2015 paid to allowed ratios is applied to the 2017 projected allowed claims, reweighted for expected plan mix differences between 2015 and 2017 within this legal entity. The result of this exercise is 67.6%.

This amount is then adjusted to account for the impact of leveraging over the two year span. This is pursuant to the directions set forth by the 2017 URRT instructions. Leveraging (sometimes referred to as deductible leveraging) captures the additional amount of net trend, because allowed claims trend at a different rate than member cost sharing. This effect is calculated by measuring the impact of changes in allowed costs, holding member cost sharing constant.
Leveraging has an impact of -4.2%, which produces a total paid to allowed ratio of 64.8%.

Projected Risk Adjustment PMPM [I]

Projected 2017 risk adjustment transfers are developed using an internal model that forecasts membership and risk adjustment transfers across all carriers in the state. The transfer calculation utilized by this model is consistent with the Federal Transfer Formula, accounting for all necessary components, separated between the metal and catastrophic risk pools: plan liability risk score (PLRS), allowable rating factor (ARF), induced demand factor (IDF), actuarial value (AV), geographic cost factor (GCF), and state average premium. This section focuses solely on the risk adjustment projection elements of this model; a separate section in this memorandum provides further detail on the membership projection elements.

Beginning in 2015, the model combines the actual risk scores associated with Humana plan-level enrollment data, with best estimate risk scores for the rest of the market. These estimates are set based on publicly available sources (e.g., 2014 risk adjustment settlements) and consultant estimates for 2015. The remaining components are driven by the plan and demographic mixes underlying the 2015 market-wide membership forecast (see "Membership Projections" section). The resulting 2015 transfer amounts are then compared to separate internal and consultant estimates, as well as to 2014 settlement results, for reasonability.

For 2017, each of the transfer components is projected to change in response to changing membership volume and mix by carrier, by plan, by geography, transitional/new sale/renewal, etc.

In aggregate, Humana Health Plan, Inc. in Kentucky expects a -$23.21 PMPM average Risk Adjustment Transfer Payment to HHS, net of the risk adjustment user fee. Please note that, while the risk adjustment user fee is $0.13 PMPM ($1.56 PMPY) for 2017, this net transfer amount has only been adjusted by $0.10 PMPM. This is to account for the fact that Worksheet 1 of the URRT requires that the risk adjustment user fee be applied in the build-up prior to grossing up for retention (i.e., dividing by 1 minus admin, profit/risk, & taxes/fees).

In compliance with rating rules, projected total Risk Adjustment Transfer Payments are allocated across all plans as a constant percentage of premium. Altogether, this allocation produces a 9.3% adjustment to claims.

Non-Benefit Expenses and Profit & Risk [J]

Expenses are based on an internal forecast for 2017. Expenses were estimated by Humana's Finance team and are deemed appropriate for the plans proposed in the filing.

Administrative Expenses	15.72%
Profit Margin	4.21%
Taxes and Fees	5.85%
Total Non-Benefit Expenses	25.78%

Administrative Expenses include a 1.1% load for quality expenses allowed under the Federal MLR rules.
These expenses are loaded as a flat percentage of premium at this point in time and do not vary by product or plan.

Humana's target profit margin is estimated as the post-tax income and does not include investment income.

The load for taxes and fees assumed in this filing are as follows:

Taxes & Fees Component	% of Premium
State Premium Tax	0.15%
Health Insurance Provider Fee	0.00%
Exchange Fee	2.99%
Other Miscellaneous Taxes	0.35%
Federal Income Tax	2.37%
Total	5.85%

The Federal Income Tax is estimated as 36% times the pretax profit margin. Note that the Health Insurance Provider Fee is 0.0% due to the moratorium on this fee for the 2017 calendar year.
The Other Miscellaneous Taxes line accounts for the cost of state licensing and filing compliance costs and the Patient-Centered Outcomes Research Institute (PCORI) Fee.
As instructed in the Part III Actuarial Memorandum instructions, the cost of the risk adjustment program (i.e., risk adjustment user fee) is included in the estimated payable/receivable under that program.

Projected Loss Ratio

The projected loss ratio using the Federally prescribed MLR methodology is at least 80%.
In the demonstration below, PMPM estimates are shown, other than the calculated MLR.

Item		Source	Estimate
Incurred Claims	A	Worksheet 1, V34	$249.71
Risk Adjustment[1]	B	- (Worksheet 1, V35)[1]	$23.11
Quality	C	1.1% * E	$4.04
Total Numerator	D	Sum of A:C	$276.87
Earned Premium	E	Worksheet 1	$367.72
Taxes & Fees	F	5.9% * E	$21.51
Risk Adjustment User Fee	G	$0.13	$0.13
Total Denominator	H	E - F - G	$346.08
Federal MLR	I	D / H	80.00%

[1]This value has been adjusted from what appears on Worksheet 1 to remove the impact of the risk adjustment user fee.

II. Reasons for Rate Changes

Proposed Rate Changes

This actuarial memorandum accommodates rates developed for products new to the market in 2014 or later. The overall annual average rate change from 1/1/2016 to 1/1/2017 associated with this filing is 33.7%.

Significant factors driving the proposed rate change for all plans include:

- Changes in morbidity of the covered population in the projection period, including the impact of risk adjustment payments/receivables, relative to the morbidity assumption used to develop rates in 2016
- Changes in medical cost and utilization trends
- Changes to plan design, mainly as a result of changes in the Actuarial Value Calculator and 2017 Final Notice of Benefit and Payment Parameters and covered benefits as a result of the new 2017 EHB Benchmark plan
- Changes due to re-evaluation of high value network costs and utilization
- Changes in taxes, fees, and other non-benefit expenses (including the 2017 moratorium on the Health Insurance Provider Fee)
- Changes due to the discontinuance of the Federal Transitional Reinsurance Program in 2017
- Development of experience since the prior filing
- An increase to account for the projected premium shortfall due to the rating requirement to not charge premium for more than 3 child dependents

The rates proposed in this filing for all plans are based on the same single risk pool of experience, however, there are variances by plan and product. Factors that contribute to the variation include:

- Changes in plan cost sharing
- Changes in the estimated impact of induced utilization
- Changes to the estimated value of provider contracts and provider practice pattern differences across markets

For an illustration of the variation in plan level rate changes due to these impacts, please see Worksheet 2 of the Unified Rate Review template.

III. Further Explanation of Compliance with Single Risk Pool Requirements

Single Risk Pool

The Individual Single Risk Pool for Humana Health Plan, Inc. in Kentucky has been established according to the requirements in 45 CFR 156.80(d).

The Single Risk Pool reflects all covered lives for every non-grandfathered product/plan combination, including transitional products/plans, for purposes of base rate experience.

Index Rate

The index rate for the experience period is simply the allowed claims PMPM in 2015 for all non-grandfathered plans, including the experience under any transitional products/plans that may exist. An adjustment is made to remove the impact of non-EHB state mandated benefits (enacted on or after 1/1/2012) and other benefits in addition to EHB from the experience period allowed claims; it is implicitly assumed that all other allowed claims for 2015 were for essential health benefits.

The index rate for the projection period is the credibility manual blended allowed claims PMPM multiplied by the assumed proportion of allowed claims associated with essential health benefits, thereby excluding state mandated covered benefits (enacted on or after 1/1/2012) and other covered benefits in excess of essential health benefits.

For the projection period, covered benefits in excess of essential health benefits due to mandates enacted on or after 1/1/2012 that are included in allowed claims includes non-pediatric routine vision exams.

For the projection period, there are no other covered benefits in excess of essential health benefits that are included in allowed claims but excluded from the index rate.

For the purposes of populating Section III of Worksheet 2, the current best estimate of the portion of premium and claims that are attributed to EHB, state mandated benefits Non-EHB, and Other EHB was used.

Market Adjusted Index Rate

The following market-wide adjustments are applied to the projected index rate to produce the Market Adjusted Index Rate, which is shown in 'Exhibit 1 - Rate Development and Calibration Demonstration'.

- An adjustment for the net impact of risk adjustment. See earlier "Projected Risk Adjustment PMPM" section for more details of this market-wide adjustment.
- An adjustment for the anticipated cost of exchange user fees. The user fee cost of 3.5% of premiums has been applied to the estimated percentage of 2017 premiums from membership enrolled on the exchange.

Plan Adjusted Index Rate

The following plan-specific adjustments are applied to the Market Adjusted Index Rate to produce the Plan Adjusted Index Rates:

- **AV and Cost Sharing Adjustment**: The individual plan tier pricing actuarial values (AVs) were developed based on an internal pricing model with underlying utilization and costs reflective of a standard population equal to that of the anticipated membership in the single risk pool. The data used to produce the pricing AVs was based on a dataset comprised of standard population of commercially insured membership purchased from a third party vendor. In order to provide the level of detail necessary for the analysis, internal data was used to subdivide the claims experience but the overall utilization level was calibrated to a standard population derived from a multitude of commercial insurers across a broad geographic area. Using this data, a seriatim (member-by-member) model was developed with the standard population data and projected 2017 annual claims by benefit category. Then, the 2017 plan design parameters were applied to those allowed claims to produce paid claims and pricing AV's.

  Induced utilization is also a component of the AV and Cost Sharing Adjustment. Adjustments have been made to the induced utilization factors based on actual observed 2014 and 2015 ACA claim cost experience, making sure no health status differences were reflected in the AV and Cost Sharing Adjustment.
- **Provider Network, Delivery System and Utilization Management Adjustment**: The development of the index rate includes the anticipated average unit costs derived from the provider networks that will be available on this legal entity in this state. These average unit costs are the result of charge levels, network discounts, delivery system characteristics and utilization management practices across the entire state, for this issuer. As permitted, an adjustment is made to each plan rate to account for the specific cost differences from each provider network compared to the overall average across all plans.

• **Benefits in addition to EHBs**: An adjustment for the addition of non-EHB benefits is included (additional discretional benefits provided, as well as any state mandated benefits not reflected in the benchmark plan, such as mandates enacted on or after 1/1/2012). The valuation of these extra benefits is performed using appropriate broad populations and the resulting impacts are applied uniformly across all plans with the additional benefits.

• **Catastrophic Plan Adjustment:**

An adjustment is made to catastrophic plans to reflect the differences in projected costs for the catastrophic population due to specific eligibility categories for the catastrophic plan. The catastrophic plan is part of the single risk pool, but this adjustment is to reflect the difference in average enrollee gross spending and expected average risk adjustment payments and transfers.
Enrollee gross spending differences are from catastrophic plans only being available to people under age 30 or people eligible due to affordability or hardship. The risk adjustment transfer differences are due to catastrophic plans being in a separate risk adjustment pool as metallic plans.

• **Distribution & Admin Costs**: Expense estimates (excluding exchange user fees) were based on the internal forecast for 2017. They were estimated based on current costs, modified to accommodate projected volume changes and changes in department workloads.

• **Tobacco Adjustment**: A final adjustment is required to ensure that the Plan Adjusted Index Rates are expressed as non-tobacco user rates. The average tobacco-user load is determined as the average expected additional premium load as a percentage of total expected non-tobacco user premiums. This average load is used to reduce the average Plan Adjusted Index Rates to non-tobacco user rates.

Calibration

The Plan Adjusted Index Rates need to be calibrated in order to calculate Consumer Adjusted Premium Rates. A single calibration factor for age rating is required.

The weighted average age associated with the projected single risk pool, is 47.88 which rounded to a whole number, is 48.
This average age factor is calculated as the member weighted age rating factor, using the projected age distribution assumptions in the pricing model. Consistent with the 2017 URRT Instructions, a factor of zero is applied for the distribution of members expected to pay no premium. The average age factor is then compared to the standard age rating curve; the age factor closest to the calculated weighted age rating factor is used to select the whole number calibration age.

The geographic rating factors applicable to the Plan Adjusted Index Rates are listed in ''Exhibit 1 - Rate Development and Calibration Demonstration'' in the appendix of the memorandum.
Please see ''Exhibit 2 - Development of Geographic Factors'' for the development of the geographic rating factors.

''Exhibit 1 - Rate Development and Calibration Demonstration'' also illustrates how the Plan Adjusted Index Rates are used with the Calibration Factors to produce Consumer Adjusted Premium Rates. It is important to note that rates developed through this process are only approximate rates; they differ from the true rates due to the calibration requirement of selecting a whole number calibration age.

Consumer Adjusted Premium Rate Development

As previously noted, please see ''Exhibit 1 - Rate Development and Calibration Demonstration'' for a demonstration of how the Plan Adjusted Index Rates can be used with the calibration factors and allowable rating factors to produce Consumer Adjusted Premium Rates.

To determine rates for tobacco users, a rating factor of 1.10 must be applied. This adjustment for tobacco usage is supported by the findings of a Milliman Research Report, which found that tobacco users cost about 9% more than non-tobacco users, when normalizing for age and gender (“Impact of height, weight, and smoking on medical claim costs,” Milliman Inc., April 2009).

AV Metal Values

The AV Metal Values indicated in Worksheet 2 of the Part I Unified Rate Review Template were determined using the AV Calculator for all plans new to the market 2014 and later.

AV Pricing Values

The AV Pricing Values are calculated as the ratio of each Plan Adjusted Index Rate and the Market Adjusted Index Rate. These values reflect differences between plans due to differences in provider network, cost sharing designs, induced utilization, catastrophic plan eligibility variation, and administrative costs (less exchange fees). In addition, an adjustment is made to the Plan Adjusted Index Rate to remove the portion of the cost that is expected to be earned through the tobacco surcharge.

One of the main components of the AV Pricing Value is the difference in cost sharing designs between plans. This is determined using a seriatim (member-by-member) model on a standard population. In this model, claims are listed by benefit category, and the impact of the benefit attributes of each plan is valued for that cohort of experience. This is done by looking at the ratio of resulting paid claims for that plan design to allowed claims, thereby creating a starting point to value each plan.

Induced utilization is also a component of the AV Pricing Value. Adjustments have been made to the induced utilization factors based on actual observed 2014 and 2015 ACA claim cost experience, making sure no health status differences were reflected in the AV Pricing Value.

Additional modifiers are applied to derive the Plan Adjusted Index Rate, as explained in the above Index Rate sections. The progression from the Market Adjusted Index Rate to the Plan Adjusted Index Rates is shown in the ''Exhibit 1 - Rate Development and Calibration Demonstration" document. Each of these modifiers is itemized in that demonstration. The AV Pricing Value shown in that demonstration and in Worksheet 2 of the Unified Rate Review Template represents the ratio of each Plan Adjusted Index Rate to the Market Adjusted Index Rate.

Membership Projections

Projected 2017 membership and exposure values are developed using an internal model that forecasts membership and risk adjustment transfers across all carriers in the state. This section focuses solely on the membership projection elements of this model; a separate section in this memorandum provides further detail on the transfer projection elements.

The model begins with 2015 membership. For Humana, actual 2015 enrollment data is loaded into the model by plan for the full year. For the rest of the market, enrollment is estimated using a combination of internal data and available market enrollment data sources (e.g., CMS reports) and then projected forward through the year, accounting for monthly persistency.

For 2016, enrolled members are assumed to either renew on their current plan or shop for a new plan in the open market. All shoppers for the 2016 plan year are assumed to select a new plan based on such considerations as relative price competitiveness, subsidy eligibility, and expected cost-sharing burden. Premium information comes from a combination of (1) internal premium quotes for Humana, and (2) publicly available on-exchange premium quotes for all other carriers.

Both renewing and newly sold members are forecasted through the balance of the year, accounting for monthly persistency. In addition, migrations of remaining non-ACA transitional business into the ACA pool are projected throughout the year, based on a combination of monthly persistency and carrier-specific migration assumptions, as applicable.

An identical methodology to the one described above is applied to forecast renewals, sales, and transitional migrations through the 2017 plan year. Unlike 2016, in 2017 the competitive landscape is not known with certainty. As such, price competitiveness and plan offerings in 2017 are derived by combining known 2016 rate and plan information with assumed rate changes for each carrier in the state.

In total, we are projecting 5,816 members enrolled in Humana Health Plan, Inc. in Kentucky in 2017.
Some of these members are assumed to persist month to month throughout 2017, with a portion lapsing coverage each month.
This results in 50,420 total 2017 member months.
The table below breaks down these metrics by sales/renewals, metal tier, and CSR silver variant.

Humana Health Plan, Inc. in Kentucky: Projected 2017 Exposure Summary

Cohort	Sub-Category	2017 ACA Members	Percent of Total	2017 ACA Member Months	Percent of Total
Sales/Renewals	New Sales	2,839	48.8%	22,983	45.6%
	Renewing Business	2,977	51.2%	27,437	54.4%
	Total	5,816	100.0%	50,420	100.0%
Metal Tier	Catastrophic	579	10.0%	4,981	9.9%
	Bronze	1,709	29.4%	14,215	28.2%
	Silver	3,362	57.8%	29,867	59.2%
	Gold	166	2.9%	1,356	2.7%
	Platinum				
	Total	5,816	100.0%	50,420	100.0%
CSR Silver Variant	70% CSR Variant (≥ 250% FPL)	990	17.0%	9,015	17.9%
	73% CSR Variant (200-250% FPL)	454	7.8%	3,992	7.9%
	87% CSR Variant (150-200% FPL)	1,359	23.4%	11,948	23.7%
	94% CSR Variant (< 150% FPL)	559	9.6%	4,912	9.7%
	Total	3,362	57.8%	29,867	59.2%

Experience Period Risk Adjustment & Reinsurance Adjustments

Risk adjustment transfer estimates for 2015 are developed through a combination of prior year (2014) settlement results, internal risk score data, consultant estimates, and internal modeling. We are participants in Wakely Consulting Group's proprietary risk adjustment simulation. To ensure reliable, stable results, Wakely only provides results in states where a preponderance of the ACA market is represented by participating carriers. In states where results are available, we largely rely upon them for setting our 2015 transfer amounts. In states where they are not available, we employ an internal regression model that utilizes outputs of this simulation in available states, along with actual 2014 settlement results, to develop best-estimate 2015 transfer amounts. The results of this exercise are vetted among actuarial, finance, and other business leaders on a regular basis to ensure reasonability.

Reinsurance recoveries for 2015 are estimated by starting with the 2015 Federal reinsurance parameters, making any adjustments due to estimated excessive or deficient contributions that may carry over from the prior year, and applying this to the paid claims. Claims that fall within the parameters are provided by Humana's Finance area. Recoveries are completed using completion factors developed by analyzing experience on our small group & individual blocks of business, as well as taking into account the level of the incurred but not reported (IBNR) claims outstanding.

These amounts are included in the "Allowed Claims Which are not the Issuer's Obligation" field of Section III, within Worksheet 2.

Terminated Plans and Products

Included in the terminated products column on Worksheet 2 are: Non-ACA compliant HumanaOne PHP Evolutionary and HumanaOne PHP Refresh plans. Below is a list of terminated ACA-Compliant plans.

Termed Plan ID	Termed Plan Name	Mapped to New Plan?	New Plan ID
15411KY1460001	Humana Basic 6850/ChoiceCare PPO + Children's Dental	Yes	15411KY1450045
15411KY1460002	Humana Bronze 6450/ChoiceCare PPO + Children's Dental	Yes	15411KY1450046
15411KY1460003	Humana Bronze 4850/ChoiceCare PPO + Children's Dental	Yes	15411KY1450046
15411KY1460004	Humana Silver 4250/ChoiceCare PPO + Children's Dental	Yes	15411KY1450047
15411KY1460005	Humana Silver 4125/ChoiceCare PPO + Children's Dental	Yes	15411KY1450047
15411KY1450004	Humana Gold 1400/Lexington UK HealthCare HMOx	Yes	15411KY1450048
15411KY1450005	Humana Platinum 500/Lexington UK HealthCare HMOx	No	Not Applicable
15411KY1450006	Humana Basic 6850/Lexington UK HealthCare HMOx + Children's Dental	No	Not Applicable
15411KY1450007	Humana Bronze 6550/Lexington UK HealthCare HMOx + Children's Dental	No	Not Applicable
15411KY1450008	Humana Silver 4150/Lexington UK HealthCare HMOx + Children's Dental	No	Not Applicable
15411KY1450009	Humana Gold 2250/Lexington UK HealthCare HMOx + Children's Dental	No	Not Applicable
15411KY1450010	Humana Platinum 500/Lexington UK HealthCare HMOx + Children's Dental	No	Not Applicable
15411KY1450011	Humana Basic 6850/Louisville HMOx	No	Not Applicable
15411KY1450012	Humana Bronze 6450/Louisville HMOx	No	Not Applicable
15411KY1450013	Humana Silver 3800/Louisville HMOx	No	Not Applicable
15411KY1450014	Humana Gold 2250/Louisville HMOx	No	Not Applicable
15411KY1450015	Humana Platinum 500/Louisville HMOx	No	Not Applicable
15411KY1450016	Humana Basic 6850/Louisville HMOx + Children's Dental	No	Not Applicable
15411KY1450017	Humana Bronze 6450/Louisville HMOx + Children's Dental	No	Not Applicable
15411KY1450018	Humana Silver 3800/Louisville HMOx + Children's Dental	No	Not Applicable
15411KY1450019	Humana Gold 2250/Louisville HMOx + Children's Dental	No	Not Applicable
15411KY1450020	Humana Platinum 500/Louisville HMOx + Children's Dental	No	Not Applicable
15411KY1450021	Humana Basic 6850/Cincinnati/Northern KY HMOx	No	Not Applicable
15411KY1450022	Humana Bronze 6450/Cincinnati/Northern KY HMOx	No	Not Applicable
15411KY1450023	Humana Silver 3800/Cincinnati/Northern KY HMOx	No	Not Applicable
15411KY1450024	Humana Gold 2250/Cincinnati/Northern KY HMOx	No	Not Applicable
15411KY1450025	Humana Platinum 500/Cincinnati/Northern KY HMOx	No	Not Applicable
15411KY1450026	Humana Basic 6850/Cincinnati/Northern KY HMOx + Children's Dental	No	Not Applicable
15411KY1450027	Humana Bronze 6450/Cincinnati/Northern KY HMOx + Children's Dental	No	Not Applicable
15411KY1450028	Humana Silver 3800/Cincinnati/Northern KY HMOx + Children's Dental	No	Not Applicable
15411KY1450029	Humana Gold 2250/Cincinnati/Northern KY HMOx + Children's Dental	No	Not Applicable
15411KY1450030	Humana Platinum 500/Cincinnati/Northern KY HMOx + Children's Dental	No	Not Applicable
15411KY1450034	Humana Gold 2250/Norton + Just For Kids HMOx	No	Not Applicable
15411KY1450035	Humana Platinum 500/Norton + Just For Kids HMOx	No	Not Applicable
15411KY1450036	Humana Basic 6850/Norton + Just For Kids HMOx + Children's Dental	No	Not Applicable
15411KY1450037	Humana Bronze 6450/Norton + Just For Kids HMOx + Children's Dental	No	Not Applicable
15411KY1450038	Humana Silver 3800/Norton + Just For Kids HMOx + Children's Dental	No	Not Applicable
15411KY1450039	Humana Gold 2250/Norton + Just For Kids HMOx + Children's Dental	No	Not Applicable
15411KY1450040	Humana Platinum 500/Norton + Just For Kids HMOx + Children's Dental	No	Not Applicable

*The Mapped Plan ID may vary depending on plan availability in a member's location. Members will be mapped to the most similar HMOx plan when available in their rating area.

Plan Type

There are no perceived differences between the issuer's plan and the plan type selected.

Warning Alerts

Worksheet 1,Cell G16:

A warning has been generated in cell G16. Due to rounding, there is a $0.01 difference between cell G16 and H30.

Worksheet 2, Row 55 and/or Row 57:

The plan adjusted index rates for the experience period were entered based on what was filed in the 2015 rate filings. The Experience Period Plan Adjusted Index Rates average out to an approximate premium PMPM that was expected back when our 2015 filings were submitted. However, the actual Premium PMPM experienced during 2015 from Worksheet 1 differs now that actual experience is available.

In addition, $0 was entered for the Plan Adjusted Index Rate under the Terminated Products column on Worksheet 2. When this gets weighted in, the average is brought down to be incomparable with Worksheet 1.
Lastly, the premium on Worksheet 1 is modified for risk adjustment, whereas the plan adjusted index rates have no adjustment for this.

Worksheet 2, Row 68 and 73:

The 2017 Unified Rate Review Instructions define Incurred Claims in the Experience Period on page 14 to be allowed claims less member cost-sharing and cost-sharing paid by HHS on behalf of low-income members for Worksheet 1. There is no indication to adjust for federal risk transfer charges or payments. However, this amount is clearly excluded from the Total Incurred Claims, payable with issuer funds field on Worksheet 2, as explained on pages 43-44 of the Instructions. We have populated the fields consistent with the Instructions, though this causes a difference between Worksheets 1 and 2 and therefore generates a warning alert.

Effective Rate Review Information

Humana reviews capital and surplus annually at the legal entity level and uses those targets to determine dividends to or infusions of capital from the Humana parent company. Capital and surplus are considered in setting pricing profit targets.

Reliance

I, Neal Luitjens, relied on others within the company to provide data and analysis in support of the completion of Part I of the Unified Rate Review Template. Steps were taken by me to ensure that the information provided is reasonable and reflects an adequate representation of the information necessary to complete this filing. The following are individuals and their contributions to the rate filing:

-Jennifer Jacobsen, FSA, MAAA: Actuarial value, plan modifications, and benefit relativities

-Brandon Combs, FSA, MAAA: Projections of membership changes and accompanying changes in morbidity and risk adjustment transfers

Actuarial Certification

I, Neal Luitjens, am an Actuary for Humana. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I certify that this rate filing has been prepared in accordance with the following Actuarial Standards of Practice:

•ASOP No. 5, Incurred Health and Disability Claims

•ASOP No. 8, Regulatory Filings for Rates and Financial Projections for Health Plans

•ASOP No. 12, Risk Classification

•ASOP No. 23, Data Quality

•ASOP No. 25, Credibility Procedures Applicable to Accident and Health, Group Term Life, and Property/Casualty Coverages

•ASOP No. 26, Compliance with Statutory and Regulatory Requirements for the Actuarial Certification of Small Employer Health Benefit Plans

• ASOP No. 41, Actuarial Communications

I hereby certify to the best of my knowledge and judgment and based upon the information presented to me:

1. The projected index rate is:
   a. in compliance with all applicable State and Federal Statutes and Regulations (45 CFR 156.80 and 147.102),
   b. developed in compliance with the applicable Actuarial Standards of Practice,
   c. reasonable in relation to the benefits provided and the population anticipated to be covered,
   d. and neither excessive nor deficient.
2. That the index rate and only the allowable modifiers as described in 45 CFR 156.80(d)(1) and 45 CFR 156.80(d)(2) were used to generate plan level rates.
3. That the percent of total premium that represents essential health benefits included in Worksheet 2, Sections III and IV was calculated in accordance with Actuarial Standards of Practice.
4. That the 2017 AV Calculator was used to determine the AV Metal Values shown in Worksheet 2 of the Part I Unified Rate Review Template for all plans unless specified in the certification, that the plan information was accurately entered into the AV Calculator, and that metal levels were appropriately assigned based on the results of the AV Calculator, in conjunction with any alternate methodology as described in the attached actuarial certification. This determination was made in accordance with the ASOPs established by the ASB and with applicable laws and regulations. All plans offered by this issuer in the individual market meet the metal levels required by applicable laws and regulation for the 2017 plan year.
5. That information contained in the Actuarial Memorandum complies with the law applicable to that section.
6. That the geographic rating factors reflect only differences in the costs of delivery, including applicable unit cost and provider practice pattern differences, and do not include differences for population morbidity by geographic area.

Actuary signature:

Actuary Printed Name: Neal Luitjens, ASA, MAAA

Date: April 11, 2016

v.9

Humana Health Plan, Inc. in Kentucky
Exhibit 1 - Rate Development and Calibration Demonstration

	(a) **Index Rate**		$385.20
	Allowable Market-wide modifiers		
(b)	Risk Adjustment	$	(23.21)
(c) = 2.99% x $385.2 SRP premium	Exchange User Fees	$	10.99
(d) = (b) - (c)	Total	$	(34.20)
(e)	Paid to Allowed Factor		64.8%
(f) = (d) / (e)	Market-wide adjustment	$	(52.78)
(g) = (a) - (f)	**Market Adjusted Index Rate**		$437.98

(h)	Member Weights	1.7%	2.0%	3.8%	0.0%	2.7%	3.3%	7.3%	5.4%	22.7%	47.8%	2.8%	0.2%	0.4%	
	Metal Tier	Catastrophic	Bronze	Silver	Catastrophic	Gold	Bronze	Silver	Catastrophic	Bronze	Silver	Catastrophic	Bronze	Silver	
	Plan ID	15411KY1450001	15411KY1450002	15411KY1450003	15411KY1450044	15411KY1450048	15411KY1450049	15411KY1450050	15411KY1450031	15411KY1450032	15411KY1450033	15411KY1450045	15411KY1450046	15411KY1450047	
	Adjustments to Market Adjusted Index Rate														Average
(i)	AV and Cost Sharing	0.5902	0.5584	0.7146	0.5925	0.9078	0.5606	0.7174	0.5902	0.5584	0.7146	0.5925	0.5606	0.7174	
(j) = (g) * (i)		$ 258.48	$ 244.57	$ 312.97	$ 259.52	$ 397.61	$ 245.55	$ 314.22	$ 258.48	$ 244.57	$ 312.97	$ 259.52	$ 245.55	$ 314.22	$ 290.74
(k)	Add'l Non-EHB Benefits	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	1.0004	
(l) = (j) * (k)		$ 258.59	$ 244.67	$ 313.10	$ 259.62	$ 397.77	$ 245.65	$ 314.35	$ 258.59	$ 244.67	$ 313.10	$ 259.62	$ 245.65	$ 314.35	$ 290.86
(m)	Network Adjustment	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
(n) = (l) * (m)		$ 258.59	$ 244.67	$ 313.10	$ 259.62	$ 397.77	$ 245.65	$ 314.35	$ 258.59	$ 244.67	$ 313.10	$ 259.62	$ 245.65	$ 314.35	$ 290.86
(o)	Catastrophic Plan Adj	0.7294	1.0000	1.0000	0.7294	1.0000	1.0000	1.0000	0.7294	1.0000	1.0000	0.7294	1.0000	1.0000	
(p) = (n) * (o)		$ 188.63	$ 244.67	$ 313.10	$ 189.38	$ 397.77	$ 245.65	$ 314.35	$ 188.63	$ 244.67	$ 313.10	$ 189.38	$ 245.65	$ 314.35	$ 283.94
(q) = [1/ (1 - admin costs)]	Distribution & Admin Costs	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	1.2952	
(r) = (p) * (q)		$ 244.31	$ 316.90	$ 405.52	$ 245.29	$ 515.19	$ 318.17	$ 407.14	$ 244.31	$ 316.90	$ 405.52	$ 245.29	$ 318.17	$ 407.14	$ 367.75
(s) = 1 / Avg Tobacco Load	Non-Tobacco Adjustment	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	0.9791	
(t) = (r) * (s)		$ 239.20	$ 310.28	$ 397.04	$ 240.16	$ 504.43	$ 311.52	$ 398.63	$ 239.20	$ 310.28	$ 397.04	$ 240.16	$ 311.52	$ 398.63	$ 360.07
(u)	**Plan Adjusted Index Rates**	$ 239.20	$ 310.28	$ 397.04	$ 240.16	$ 504.43	$ 311.52	$ 398.63	$ 239.20	$ 310.28	$ 397.04	$ 240.16	$ 311.52	$ 398.63	$ 360.07
(u) / (g)	***AV Pricing Value***	0.5461	0.7084	0.9065	0.5483	1.1517	0.7113	0.9102	0.5461	0.7084	0.9065	0.5483	0.7113	0.9102	
(v)	Avg Age Factor	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626	1.626

Age	Age Factor
47	1.563
48	1.635
47.88	1.626
48.0	Rounded

	Calibration Factors		
(w) = rounded avg age factor	Age	48.0	1.635
(x) = geographic area factor	Area		1.000

Area Factor	
Rating Area	Factor
Rating Area 3	0.9614
Rating Area 5	1.1471

Consumer Adjusted Premium Rates Non-Tobacco Rates Demonstration

Metal Tier		Catastrophic	Bronze	Silver	Catastrophic	Gold	Bronze	Silver	Catastrophic	Bronze	Silver	Catastrophic	Bronze	Silver
Plan ID		15411KY1450001	15411KY1450002	15411KY1450003	15411KY1450044	15411KY1450048	15411KY1450049	15411KY1450050	15411KY1450031	15411KY1450032	15411KY1450033	15411KY1450045	15411KY1450046	15411KY1450047
		Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 1.1471 Rating Area 5	Factor 0.9614 Rating Area 3	Factor 0.9614 Rating Area 3	Factor 0.9614 Rating Area 3	Factor 0.9614 Rating Area 3	Factor 0.9614 Rating Area 3	Factor 0.9614 Rating Area 3
Age	Age Factor													
0-20	0.635	$ 106.57	$ 138.23	$ 176.89	$ 107.00	$ 224.73	$ 138.79	$ 177.60	$ 89.32	$ 115.85	$ 148.25	$ 89.67	$ 116.32	$ 148.85
21	1.000	$ 167.83	$ 217.69	$ 278.57	$ 168.50	$ 353.91	$ 218.56	$ 279.68	$ 140.65	$ 182.45	$ 233.47	$ 141.22	$ 183.18	$ 234.40
22	1.000	$ 167.83	$ 217.69	$ 278.57	$ 168.50	$ 353.91	$ 218.56	$ 279.68	$ 140.65	$ 182.45	$ 233.47	$ 141.22	$ 183.18	$ 234.40
23	1.000	$ 167.83	$ 217.69	$ 278.57	$ 168.50	$ 353.91	$ 218.56	$ 279.68	$ 140.65	$ 182.45	$ 233.47	$ 141.22	$ 183.18	$ 234.40
24	1.000	$ 167.83	$ 217.69	$ 278.57	$ 168.50	$ 353.91	$ 218.56	$ 279.68	$ 140.65	$ 182.45	$ 233.47	$ 141.22	$ 183.18	$ 234.40
25	1.004	$ 168.50	$ 218.56	$ 279.68	$ 169.17	$ 355.32	$ 219.44	$ 280.80	$ 141.22	$ 183.18	$ 234.40	$ 141.78	$ 183.91	$ 235.34
26	1.024	$ 171.85	$ 222.92	$ 285.25	$ 172.54	$ 362.40	$ 223.81	$ 286.40	$ 144.03	$ 186.83	$ 239.07	$ 144.61	$ 187.57	$ 240.03
27	1.048	$ 175.88	$ 228.14	$ 291.94	$ 176.58	$ 370.90	$ 229.05	$ 293.11	$ 147.41	$ 191.21	$ 244.68	$ 148.00	$ 191.97	$ 245.65
28	1.087	$ 182.43	$ 236.63	$ 302.80	$ 183.16	$ 384.70	$ 237.58	$ 304.02	$ 152.89	$ 198.32	$ 253.78	$ 153.50	$ 199.11	$ 254.80
29	1.119	$ 187.80	$ 243.60	$ 311.72	$ 188.55	$ 396.02	$ 244.57	$ 312.97	$ 157.39	$ 204.16	$ 261.25	$ 158.02	$ 204.98	$ 262.30
30	1.135	$ 190.48	$ 247.08	$ 316.18	$ 191.24	$ 401.69	$ 248.07	$ 317.44	$ 159.64	$ 207.08	$ 264.99	$ 160.28	$ 207.91	$ 266.05
31	1.159	$ 194.51	$ 252.31	$ 322.86	$ 195.29	$ 410.18	$ 253.31	$ 324.15	$ 163.02	$ 211.46	$ 270.59	$ 163.67	$ 212.30	$ 271.67
32	1.183	$ 198.54	$ 257.53	$ 329.55	$ 199.33	$ 418.67	$ 258.56	$ 330.87	$ 166.39	$ 215.84	$ 276.19	$ 167.06	$ 216.70	$ 277.30
33	1.198	$ 201.06	$ 260.80	$ 333.73	$ 201.86	$ 423.98	$ 261.84	$ 335.06	$ 168.50	$ 218.57	$ 279.70	$ 169.18	$ 219.45	$ 280.81
34	1.214	$ 203.74	$ 264.28	$ 338.18	$ 204.56	$ 429.65	$ 265.34	$ 339.54	$ 170.75	$ 221.49	$ 283.43	$ 171.44	$ 222.38	$ 284.57
35	1.222	$ 205.08	$ 266.02	$ 340.41	$ 205.90	$ 432.48	$ 267.08	$ 341.77	$ 171.88	$ 222.95	$ 285.30	$ 172.57	$ 223.84	$ 286.44
36	1.230	$ 206.43	$ 267.76	$ 342.64	$ 207.25	$ 435.31	$ 268.83	$ 344.01	$ 173.01	$ 224.41	$ 287.17	$ 173.70	$ 225.31	$ 288.32
37	1.238	$ 207.77	$ 269.50	$ 344.87	$ 208.60	$ 438.14	$ 270.58	$ 346.25	$ 174.13	$ 225.87	$ 289.03	$ 174.83	$ 226.77	$ 290.19
38	1.246	$ 209.11	$ 271.24	$ 347.10	$ 209.95	$ 440.97	$ 272.33	$ 348.49	$ 175.26	$ 227.33	$ 290.90	$ 175.96	$ 228.24	$ 292.07
39	1.262	$ 211.80	$ 274.73	$ 351.55	$ 212.64	$ 446.63	$ 275.83	$ 352.96	$ 177.51	$ 230.25	$ 294.64	$ 178.22	$ 231.17	$ 295.82
40	1.278	$ 214.48	$ 278.21	$ 356.01	$ 215.34	$ 452.30	$ 279.32	$ 357.44	$ 179.76	$ 233.17	$ 298.37	$ 180.48	$ 234.10	$ 299.57
41	1.302	$ 218.51	$ 283.44	$ 362.70	$ 219.38	$ 460.79	$ 284.57	$ 364.15	$ 183.13	$ 237.55	$ 303.98	$ 183.87	$ 238.50	$ 305.19
42	1.325	$ 222.37	$ 288.44	$ 369.10	$ 223.26	$ 468.93	$ 289.60	$ 370.58	$ 186.37	$ 241.74	$ 309.35	$ 187.11	$ 242.71	$ 310.58
43	1.357	$ 227.74	$ 295.41	$ 378.02	$ 228.65	$ 480.25	$ 296.59	$ 379.53	$ 190.87	$ 247.58	$ 316.82	$ 191.63	$ 248.57	$ 318.08
44	1.397	$ 234.45	$ 304.12	$ 389.16	$ 235.39	$ 494.41	$ 305.33	$ 390.72	$ 196.49	$ 254.88	$ 326.16	$ 197.28	$ 255.90	$ 327.46
45	1.444	$ 242.34	$ 314.35	$ 402.25	$ 243.31	$ 511.04	$ 315.61	$ 403.86	$ 203.11	$ 263.46	$ 337.13	$ 203.92	$ 264.51	$ 338.48
46	1.500	$ 251.74	$ 326.54	$ 417.85	$ 252.75	$ 530.86	$ 327.84	$ 419.53	$ 210.98	$ 273.67	$ 350.20	$ 211.83	$ 274.77	$ 351.60
47	1.563	$ 262.31	$ 340.25	$ 435.40	$ 263.36	$ 553.16	$ 341.61	$ 437.15	$ 219.84	$ 285.17	$ 364.91	$ 220.72	$ 286.31	$ 366.37
48	1.635	$ 274.39	$ 355.93	$ 455.46	$ 275.49	$ 578.64	$ 357.35	$ 457.28	$ 229.97	$ 298.30	$ 381.72	$ 230.89	$ 299.50	$ 383.25
49	1.706	$ 286.31	$ 371.38	$ 475.24	$ 287.46	$ 603.77	$ 372.87	$ 477.14	$ 239.96	$ 311.26	$ 398.30	$ 240.92	$ 312.50	$ 399.89
50	1.786	$ 299.74	$ 388.80	$ 497.52	$ 300.94	$ 632.08	$ 390.35	$ 499.51	$ 251.21	$ 325.85	$ 416.98	$ 252.21	$ 327.16	$ 418.64
51	1.865	$ 312.99	$ 406.00	$ 519.53	$ 314.25	$ 660.04	$ 407.62	$ 521.61	$ 262.32	$ 340.27	$ 435.42	$ 263.37	$ 341.63	$ 437.16
52	1.952	$ 327.60	$ 424.94	$ 543.77	$ 328.91	$ 690.83	$ 426.64	$ 545.94	$ 274.56	$ 356.14	$ 455.73	$ 275.66	$ 357.56	$ 457.55
53	2.040	$ 342.36	$ 444.09	$ 568.28	$ 343.73	$ 721.97	$ 445.87	$ 570.55	$ 286.94	$ 372.19	$ 476.28	$ 288.08	$ 373.68	$ 478.18
54	2.135	$ 358.31	$ 464.77	$ 594.75	$ 359.74	$ 755.60	$ 466.63	$ 597.12	$ 300.30	$ 389.53	$ 498.46	$ 301.50	$ 391.09	$ 500.45
55	2.230	$ 374.25	$ 485.45	$ 621.21	$ 375.75	$ 789.22	$ 487.40	$ 623.69	$ 313.66	$ 406.86	$ 520.64	$ 314.91	$ 408.49	$ 522.72
56	2.333	$ 391.54	$ 507.88	$ 649.90	$ 393.10	$ 825.67	$ 509.91	$ 652.50	$ 328.15	$ 425.65	$ 544.68	$ 329.46	$ 427.35	$ 546.86
57	2.437	$ 408.99	$ 530.52	$ 678.87	$ 410.63	$ 862.48	$ 532.64	$ 681.59	$ 342.78	$ 444.63	$ 568.96	$ 344.15	$ 446.41	$ 571.24
58	2.548	$ 427.62	$ 554.68	$ 709.79	$ 429.33	$ 901.76	$ 556.90	$ 712.63	$ 358.39	$ 464.88	$ 594.88	$ 359.82	$ 466.74	$ 597.26
59	2.603	$ 436.85	$ 566.65	$ 725.12	$ 438.60	$ 921.22	$ 568.92	$ 728.02	$ 366.12	$ 474.91	$ 607.72	$ 367.59	$ 476.81	$ 610.15
60	2.714	$ 455.48	$ 590.82	$ 756.04	$ 457.30	$ 960.51	$ 593.18	$ 759.06	$ 381.74	$ 495.16	$ 633.64	$ 383.26	$ 497.15	$ 636.17
61	2.810	$ 471.59	$ 611.72	$ 782.78	$ 473.48	$ 994.48	$ 614.16	$ 785.91	$ 395.24	$ 512.68	$ 656.05	$ 396.82	$ 514.73	$ 658.67
62	2.873	$ 482.16	$ 625.43	$ 800.33	$ 484.09	$ 1,016.78	$ 627.93	$ 803.53	$ 404.10	$ 524.17	$ 670.76	$ 405.72	$ 526.27	$ 673.44
63	2.952	$ 495.42	$ 642.63	$ 822.34	$ 497.40	$ 1,044.74	$ 645.20	$ 825.63	$ 415.21	$ 538.59	$ 689.20	$ 416.87	$ 540.74	$ 691.96
64	3.000	$ 503.48	$ 653.08	$ 835.71	$ 505.49	$ 1,061.73	$ 655.69	$ 839.05	$ 421.96	$ 547.34	$ 700.41	$ 423.65	$ 549.53	$ 703.21

Plan Adjusted Index Rate * Specific Age Factor / (w Plan Adjusted Index Rate * Specific Age Factor / (w) * Specific Area Factor / (x)
To determine rates for tobacco users, a rating factor of 1.10 must be applied.
To determine rates for other rating areas, the area factors on the left can be applied rather than the one shown at the top of Consumer Adjusted Premium Rate table

The variation across the plan adjusted index rates is driven by several factors, such as a lower average age on Catastrophic. This results in values above that don't follow the relationship implied by pure benefit differences.

Kentucky
Humana Health Plan, Inc.
Exhibit 2 - Development of Geographic Network Factors

Confidential and proprietary; not subject to FOIA

This portion of the actuarial memorandum is a trade secret or confidential commercial or financial information, as defined in Exemption Four of the Freedom of Information Act. This exhibit contains network savings factors that reflect discounts Humana has negotiated with its providers. Public release of information related to provider reimbursement rates is likely to cause substantial competitive harm to Humana for the following reasons:

(1) Humana's reimbursement rates afford Humana a significant competitive advantage in allowing it to compete against competitors for customers and

(2) disclosure of this information is likely to eliminate or substantially reduce that competitive advantage.

For these reasons, this exhibit has been redacted and labeled as confidential and proprietary.

Geographic network factors reflect differences in costs without respect to health status in order to comply with Federal market rating rules. The final proposed geographic factors, as shown in the enclosed rating manual, will apply to both renewing and newly issued ACA-compliant, non-grandfathered business in 2017.

Geographic network factors were developed by using a combination of 2015 ACA experience and commercial area factors from the 2014 Milliman Health Cost Guidelines (where experience was not fully credible). Experience was normalized for age/gender, health status, induced utilization, duration, and seasonality. Milliman billed relativities were adjusted for differences in mix of providers as well as expected discounts. In addition, further adjustments were made for expected changes to network contracting, changes in claim processing, and changes in out-of-network distribution between the experience period and pricing period.

			A	B	C	D	E
Rating Area	Reference Market Name	Base Network	Base Network Area Relativity	Network Savings HMOx	Projected Membership HMOx	Geographic Network Factors HMOx	Final Geographic Factors
3	Louisville	HMOx	[redacted]	[redacted]	[redacted]	[redacted]	0.9614
5	Lexington	HMOx	[redacted]	[redacted]	[redacted]	[redacted]	1.1471
Overall			[redacted]	[redacted]	[redacted]	[redacted]	**1.0000**

The final geographic area factors are produced by taking differences between rating areas (column A) and normalizing to an average overall factor of 1.0 on the legal entity (column E).