

# **Commonwealth of Kentucky**

**Kentucky Employees' Health Plan**

**Actuarial Reserve Study  
June 30, 2025**

**Three Alliance Center  
3550 Lenox Road NE  
Suite 1700  
Atlanta, GA 30326**

**August 2025**

# Commonwealth of Kentucky

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## EXECUTIVE SUMMARY

Aon has conducted an actuarial valuation of the incurred, but not paid, claims as of June 30, 2025, for the medical and prescription drug benefits provided by Kentucky Employees' Health Plan (KEHP) and administered through Humana and Express Scripts (ESI) prior to 2015. Beginning from 2015, medical and prescription drug benefits are administered through Anthem and Caremark.

The results show a projected total reserve of approximately \$148.1 million. This figure includes \$7.1 million as an explicit provision for adverse experience. Claims that have been processed and paid, and invoiced to KEHP but not yet paid are excluded from these actuarial estimates, though this may represent an additional liability outside the scope of this actuarial review. The estimates provided also exclude unallocated amounts, which are believed to be immaterial to the Plan.

The details of the Unpaid Claim Reserve are shown in separate exhibits for Medical, Pharmacy, CDHP Health Reimbursement Arrangement (HRA) and the Waiver Credit HRA.

The traditional actuarial loss developmental method and Bornhuetter-Ferguson method were the basis of our calculation. The loss development uses historical paid claims information by incurred date. This method is consistent with reserve calculations within the industry, and best reflects the impact on claim payment patterns and accounts for the cyclical nature of the Plan's claims.

In accordance with GASB 10, to the extent that future billed premiums for the 2025 plan year are not sufficient to cover future incurred claims and administrative fees for the 2025 plan year, a "premium deficiency reserve" (PDR) in the amount of the difference should be estimated. As of June 30, 2025, due to the estimated revenue (\$1,319.3 million) being insufficient to cover the estimated program expenses (\$1,533.1 million), there is an additional premium deficiency reserve of \$213.8 million.

Also included in this report are the actual Rx rebates paid from January 1, 2021 to December 31, 2024 and the estimated Rx rebate from January 1, 2025 to June 30, 2025.

The results mentioned above are contingent upon future events. Consequently, actual results will differ from projected results. These deviations may be material. KEHP staff should monitor emerging experience and take appropriate actions as required.

**ACTUARIAL CERTIFICATION  
STATEMENT OF OPINION**

Aon has been retained by the Commonwealth of Kentucky to study the actuarial reserves for incurred but not paid claims as of June 30, 2025, for the medical and prescription drug benefits provided by Kentucky Employees' Health Plan. I am employed by Aon. I am a Member of the Society of Actuaries and am qualified by education and experience to make the statements of actuarial opinion contained herein.

In performing our reserve study, we have relied upon reports and information provided by Merative, the carriers and The Commonwealth of Kentucky. We have not audited this data beyond general tests for reasonableness. The results are our best estimate of incurred but unpaid claims with explicit margins for adverse deviation. The techniques and methodology used are reasonable and in accordance with generally accepted actuarial principles and practice.



August 25, 2025

LinXia Xiong, FSA, MAAA  
Vice President

Date



August 25, 2025

Colleen M. Huber, FSA, MAAA  
Senior Vice President

Date

## DATA AND ASSUMPTIONS

Commonwealth of Kentucky Medical and Pharmacy benefits are administered through Anthem and Caremark beginning from 2015. Below is all data source we have used:

- Monthly enrollment provided by Merative.
- Transactional and eligibility data was provided by KEHP.
- Medical and Pharmacy claims incurred and paid from July 1, 2021 to June 30, 2025 provided by Anthem and Caremark.

No adjustment for interest was used in this analysis. Anthem and Caremark don't charge administrative fees for processing run-out claims so no administrative fee reserve is required.

## METHODOLOGY

The unpaid claim liability (UCL), also called the incurred but not reported (IBNR) reserve, at a specified date is essentially the estimated claims incurred up to that date less the claims that have been (incurred and) paid to that date. Since the incurred and paid claims are known, the UCL is easily determined once the incurred claims have been estimated.

The traditional loss development method uses historical claim payment patterns to develop completion factors that are used to estimate incurred claims. The claims incurred in a given month and paid by the end of the experience period are divided by the completion factor to estimate the incurred claims for that month. The UCL for that month is subsequently determined by subtracting the known incurred and paid claims from the estimated incurred claims. The total UCL is merely the sum of all the appropriate monthly UCL estimates.

This method is relatively easy to understand and is effective when the historical claim payment patterns are deemed to be stable enough to estimate current/future claim payment patterns and when several months of claim payments (run-out) after the incurred month are available. When the run-out for any month is limited, this month is called immature and the associated completion factor is significantly less than one. The resulting incurred claim estimate is unstable. Consequently, a secondary method has traditionally been used to estimate the immature months.

The secondary method for health claims is often an average of historical incurred claims adjusted for claim trend and enrollment between the historical period and the time of interest. One of the shortcomings of this secondary method is that the available claim payment information for the month being estimated is not used. Another problem is that the line of demarcation between mature months and immature months is as much art as science.

The Bornhuetter-Ferguson Method (BFM) addresses both of these issues by blending the loss development method and the secondary method. The BFM uses the available incurred and paid data and the expected UCL developed from the secondary method to estimate incurred claims. This method generally provides a more stable estimate than the pure loss development method, a more responsive estimate than the secondary method, and a reasonable technique for blending the results of both methods.

Using the BFM with claims paid through June 30, 2025, the resulting UCL for June 30, 2025 was approximately \$140.9 million. In addition, an explicit margin for adverse deviation of 5.0% of claims unpaid on June 30, 2025 has been used.

## RESULTS

The result of our reserve analysis shows the following components of our June 30, 2025 reserve for the Kentucky Employees' Health Plan.

### Exhibit 1

<b>Kentucky Employees' Health Plan</b>				
<b>Terminal Liability Calculation as of June 30, 2025</b>				
	Unpaid Claims Liability as of June 30, 2025	Margin (5%)	Administrative Fees for Processing Runout Claims	Total IBNR Reserve (Rounded to Nearest \$1,000)
<b>Medical</b>	\$140,132,446	\$7,006,622	\$0	\$147,139,000
<b>Pharmacy</b>	(\$1,486,902)	\$0	\$0	(\$1,487,000)
<b>CDHP HRA</b>	\$1,628,663	\$81,433	\$0	\$1,710,000
<b>Waiver HRA</b>	\$689,379	\$34,469	\$0	\$724,000
<b>Grand Total</b>	<b>\$140,963,586</b>	<b>\$7,122,524</b>	<b>\$0</b>	<b>\$148,086,000</b>

\* Claims that have been processed and paid, and invoiced to KEHP but not yet paid are excluded from these actuarial estimates, though this may represent an additional liability outside the scope of this actuarial review. The estimates provided also exclude unallocated amounts, which are believed to be immaterial to the Plan.

\*\*No administrative fees are required from Anthem or Caremark for processing runout claims.

## Exhibit 2a

### Kentucky Employees' Health Plan Medical and Pharmacy Terminal Liability Calculation as of June 30, 2025

Month	Enrollment	Estimated Incurred Claims	Completion Factor	Actual Paid	Total Unpaid Claim Reserve
Jul-22	137,350	\$148,864,261	1.000	\$148,864,261	\$0
Aug-22	136,362	\$159,421,648	1.000	\$159,421,648	\$0
Sep-22	135,557	\$155,647,259	1.000	\$155,647,259	\$0
Oct-22	137,962	\$160,924,556	1.000	\$160,924,556	\$0
Nov-22	138,038	\$168,818,781	1.000	\$168,818,781	\$0
Dec-22	138,200	\$179,117,495	1.000	\$179,117,495	\$0
Jan-23	138,657	\$129,963,636	1.000	\$129,963,636	\$0
Feb-23	138,390	\$134,033,098	1.000	\$134,033,098	\$0
Mar-23	138,646	\$162,170,741	1.000	\$162,170,741	\$0
Apr-23	138,642	\$153,760,079	1.000	\$153,760,079	\$0
May-23	138,525	\$167,729,857	1.000	\$167,729,857	\$0
Jun-23	138,392	\$176,522,265	1.000	\$176,522,265	\$0
Jul-23	138,166	\$172,816,615	1.000	\$172,816,615	\$0
Aug-23	137,374	\$181,936,655	1.000	\$181,915,020	\$21,635
Sep-23	136,796	\$166,472,174	1.000	\$166,418,344	\$53,830
Oct-23	139,327	\$184,998,039	0.999	\$184,825,414	\$172,624
Nov-23	139,556	\$189,607,888	0.999	\$189,357,364	\$250,525
Dec-23	139,704	\$200,710,153	0.999	\$200,423,161	\$286,992
Jan-24	140,879	\$145,413,429	0.998	\$145,137,829	\$275,600
Feb-24	140,692	\$157,150,677	0.997	\$156,733,511	\$417,166
Mar-24	140,964	\$169,145,476	0.997	\$168,639,845	\$505,631
Apr-24	140,951	\$178,813,060	0.996	\$178,183,641	\$629,419
May-24	140,811	\$185,816,273	0.996	\$185,020,327	\$795,946
Jun-24	140,567	\$184,877,203	0.995	\$183,924,695	\$952,507
Jul-24	140,025	\$205,176,390	0.994	\$203,854,073	\$1,322,318
Aug-24	139,110	\$195,797,082	0.993	\$194,463,484	\$1,333,598
Sep-24	138,863	\$191,490,586	0.992	\$189,969,062	\$1,521,524
Oct-24	141,061	\$214,908,490	0.991	\$213,051,886	\$1,856,604
Nov-24	141,094	\$202,243,381	0.989	\$199,984,620	\$2,258,761
Dec-24	141,445	\$236,609,093	0.986	\$233,268,839	\$3,340,255
Jan-25	142,676	\$170,064,290	0.981	\$166,773,637	\$3,290,652
Feb-25	142,659	\$169,486,742	0.976	\$165,373,859	\$4,112,883
Mar-25	142,703	\$202,107,154	0.964	\$194,732,637	\$7,374,517
Apr-25	142,541	\$206,327,553	0.938	\$193,467,615	\$12,859,938
May-25	142,413	\$211,617,989	0.876	\$185,378,870	\$26,239,119
Jun-25	142,306	\$226,369,305	0.696	\$157,595,805	\$68,773,501
<b>Total</b>		<b>\$6,446,929,376</b>		<b>\$6,308,283,831</b>	<b>\$138,645,544</b>

**Exhibit 2b**  
**Kentucky Employees' Health Plan**  
**Medical**  
**Terminal Liability Calculation as of June 30, 2025**

<b>Month</b>	<b>Enrollment</b>	<b>Estimated Incurred Claims</b>	<b>Completion Factor</b>	<b>Actual Paid</b>	<b>Total Unpaid Claim Reserve</b>
<b>Jul-22</b>	137,350	\$100,638,773	1.000	\$100,638,773	\$0
<b>Aug-22</b>	136,362	\$107,168,995	1.000	\$107,168,995	\$0
<b>Sep-22</b>	135,557	\$104,478,624	1.000	\$104,478,624	\$0
<b>Oct-22</b>	137,962	\$109,828,182	1.000	\$109,828,182	\$0
<b>Nov-22</b>	138,038	\$116,623,739	1.000	\$116,623,739	\$0
<b>Dec-22</b>	138,200	\$124,074,201	1.000	\$124,074,201	\$0
<b>Jan-23</b>	138,657	\$82,269,829	1.000	\$82,269,829	\$0
<b>Feb-23</b>	138,390	\$86,255,180	1.000	\$86,255,180	\$0
<b>Mar-23</b>	138,646	\$104,958,518	1.000	\$104,958,518	\$0
<b>Apr-23</b>	138,642	\$97,976,101	1.000	\$97,976,101	\$0
<b>May-23</b>	138,525	\$105,477,574	1.000	\$105,477,574	\$0
<b>Jun-23</b>	138,392	\$113,223,848	1.000	\$113,223,848	\$0
<b>Jul-23</b>	138,166	\$111,535,727	1.000	\$111,535,727	\$0
<b>Aug-23</b>	137,374	\$115,219,154	1.000	\$115,198,467	\$20,687
<b>Sep-23</b>	136,796	\$105,298,527	1.000	\$105,247,785	\$50,742
<b>Oct-23</b>	139,327	\$116,585,384	0.999	\$116,422,102	\$163,282
<b>Nov-23</b>	139,556	\$123,282,204	0.998	\$123,042,408	\$239,796
<b>Dec-23</b>	139,704	\$132,004,323	0.998	\$131,728,837	\$275,486
<b>Jan-24</b>	140,879	\$89,977,414	0.997	\$89,712,511	\$264,904
<b>Feb-24</b>	140,692	\$99,961,521	0.996	\$99,556,581	\$404,940
<b>Mar-24</b>	140,964	\$108,442,825	0.995	\$107,953,006	\$489,819
<b>Apr-24</b>	140,951	\$114,038,012	0.995	\$113,427,775	\$610,236
<b>May-24</b>	140,811	\$119,468,968	0.994	\$118,720,452	\$748,516
<b>Jun-24</b>	140,567	\$119,996,197	0.993	\$119,107,957	\$888,240
<b>Jul-24</b>	140,025	\$130,394,990	0.991	\$129,160,036	\$1,234,955
<b>Aug-24</b>	139,110	\$121,769,677	0.990	\$120,515,639	\$1,254,039
<b>Sep-24</b>	138,863	\$116,144,034	0.988	\$114,702,352	\$1,441,682
<b>Oct-24</b>	141,061	\$132,206,832	0.987	\$130,423,244	\$1,783,588
<b>Nov-24</b>	141,094	\$126,700,014	0.983	\$124,506,778	\$2,193,236
<b>Dec-24</b>	141,445	\$149,594,400	0.978	\$146,336,025	\$3,258,375
<b>Jan-25</b>	142,676	\$100,366,780	0.968	\$97,143,374	\$3,223,406
<b>Feb-25</b>	142,659	\$98,194,969	0.959	\$94,146,924	\$4,048,045
<b>Mar-25</b>	142,703	\$119,379,351	0.939	\$112,074,049	\$7,305,302
<b>Apr-25</b>	142,541	\$122,769,815	0.896	\$109,984,931	\$12,784,884
<b>May-25</b>	142,413	\$122,891,712	0.787	\$96,746,868	\$26,144,845
<b>Jun-25</b>	142,306	\$132,652,545	0.462	\$61,349,104	\$71,303,441
<b>Total</b>		<b>\$4,081,848,940</b>		<b>\$3,941,716,494</b>	<b>\$140,132,446</b>

**Exhibit 2c**  
**Kentucky Employees' Health Plan**  
**Pharmacy**  
**Terminal Liability Calculation as of June 30, 2025**

<b>Month</b>	<b>Enrollment</b>	<b>Estimated Incurred Claims</b>	<b>Completion Factor</b>	<b>Actual Paid</b>	<b>Total Unpaid Claim Reserve</b>
<b>Jul-22</b>	137,350	\$48,225,488	1.000	\$48,225,488	\$0
<b>Aug-22</b>	136,362	\$52,252,654	1.000	\$52,252,654	\$0
<b>Sep-22</b>	135,557	\$51,168,635	1.000	\$51,168,635	\$0
<b>Oct-22</b>	137,962	\$51,096,374	1.000	\$51,096,374	\$0
<b>Nov-22</b>	138,038	\$52,195,043	1.000	\$52,195,043	\$0
<b>Dec-22</b>	138,200	\$55,043,294	1.000	\$55,043,294	\$0
<b>Jan-23</b>	138,657	\$47,693,807	1.000	\$47,693,807	\$0
<b>Feb-23</b>	138,390	\$47,777,918	1.000	\$47,777,918	\$0
<b>Mar-23</b>	138,646	\$57,212,223	1.000	\$57,212,223	\$0
<b>Apr-23</b>	138,642	\$55,783,978	1.000	\$55,783,978	\$0
<b>May-23</b>	138,525	\$62,252,283	1.000	\$62,252,283	\$0
<b>Jun-23</b>	138,392	\$63,298,417	1.000	\$63,298,417	\$0
<b>Jul-23</b>	138,166	\$61,280,888	1.000	\$61,280,888	\$0
<b>Aug-23</b>	137,374	\$66,717,501	1.000	\$66,716,554	\$948
<b>Sep-23</b>	136,796	\$61,173,647	1.000	\$61,170,559	\$3,088
<b>Oct-23</b>	139,327	\$68,412,654	1.000	\$68,403,312	\$9,342
<b>Nov-23</b>	139,556	\$66,325,684	1.000	\$66,314,955	\$10,729
<b>Dec-23</b>	139,704	\$68,705,831	1.000	\$68,694,325	\$11,506
<b>Jan-24</b>	140,879	\$55,436,015	1.000	\$55,425,319	\$10,696
<b>Feb-24</b>	140,692	\$57,189,156	1.000	\$57,176,930	\$12,226
<b>Mar-24</b>	140,964	\$60,702,651	1.000	\$60,686,840	\$15,811
<b>Apr-24</b>	140,951	\$64,775,048	1.000	\$64,755,865	\$19,183
<b>May-24</b>	140,811	\$66,347,304	0.999	\$66,299,875	\$47,429
<b>Jun-24</b>	140,567	\$64,881,006	0.999	\$64,816,738	\$64,268
<b>Jul-24</b>	140,025	\$74,781,400	0.999	\$74,694,037	\$87,363
<b>Aug-24</b>	139,110	\$74,027,404	0.999	\$73,947,846	\$79,559
<b>Sep-24</b>	138,863	\$75,346,552	0.999	\$75,266,710	\$79,842
<b>Oct-24</b>	141,061	\$82,701,659	0.999	\$82,628,642	\$73,017
<b>Nov-24</b>	141,094	\$75,543,368	0.999	\$75,477,843	\$65,525
<b>Dec-24</b>	141,445	\$87,014,694	0.999	\$86,932,814	\$81,880
<b>Jan-25</b>	142,676	\$69,697,510	0.999	\$69,630,264	\$67,246
<b>Feb-25</b>	142,659	\$71,291,773	0.999	\$71,226,935	\$64,838
<b>Mar-25</b>	142,703	\$82,727,803	0.999	\$82,658,588	\$69,215
<b>Apr-25</b>	142,541	\$83,557,738	0.999	\$83,482,684	\$75,054
<b>May-25</b>	142,413	\$88,726,277	0.999	\$88,632,003	\$94,274
<b>Jun-25</b>	142,306	\$93,716,761	1.027	\$96,246,701	(\$2,529,941)
<b>Total</b>		<b>\$2,365,080,436</b>		<b>\$2,366,567,338</b>	<b>(\$1,486,902)</b>

## Exhibit 3

### Kentucky Employees' Health Plan Terminal Liability Calculation as of June 30, 2025

#### Health Reimbursement Arrangements

<b>CDHP HRA</b>				
<b>Period</b>	<b>Paid To Date</b>	<b>Completion Factor</b>	<b>Total Incurred</b>	<b>Unpaid Claim Reserve</b>
<b>Jan-Mar 2022</b>	\$17,811,514	100.0%	\$17,811,514	\$0
<b>Apr-Jun 2022</b>	\$16,170,041	100.0%	\$16,170,041	\$0
<b>Jul-Sep 2022</b>	\$11,826,411	100.0%	\$11,826,411	\$0
<b>Oct-Dec 2022</b>	\$10,841,739	100.0%	\$10,841,739	\$0
<b>Jan-Mar 2023</b>	\$19,185,455	100.0%	\$19,185,455	\$0
<b>Apr-Jun 2023</b>	\$15,827,021	100.0%	\$15,827,021	\$0
<b>Jul-Sep 2023</b>	\$11,863,271	100.0%	\$11,863,271	\$0
<b>Oct-Dec 2023</b>	\$11,445,701	100.0%	\$11,445,701	\$0
<b>Jan-Mar 2024</b>	\$20,498,054	100.0%	\$20,498,054	\$0
<b>Apr-Jun 2024</b>	\$18,728,371	100.0%	\$18,728,371	\$0
<b>Jul-Sep 2024</b>	\$13,457,027	100.0%	\$13,457,027	\$0
<b>Oct-Dec 2024</b>	\$10,880,654	100.0%	\$10,880,654	\$0
<b>Jan-Mar 2025</b>	\$20,229,975	98.4%	\$20,553,770	\$323,794
<b>Apr-Jun 2025</b>	\$15,422,918	92.2%	\$16,727,786	\$1,304,868
<b>Total</b>	<b>\$214,188,153</b>		<b>\$215,816,815</b>	<b>\$1,628,663</b>

<b>Waiver HRA</b>				
<b>Plan Year</b>	<b>Paid To Date</b>	<b>Completion Factor</b>	<b>Total Incurred</b>	<b>Unpaid Claim Reserve</b>
<b>2022</b>	\$35,203,968	100.0%	\$35,203,968	\$0
<b>2023</b>	\$36,384,465	100.0%	\$36,384,465	\$0
<b>2024</b>	\$36,721,693	100.0%	\$36,721,693	\$0
<b>2025</b>	\$15,710,872	95.8%	\$16,400,251	\$689,379
<b>Total</b>	<b>\$124,020,999</b>		<b>\$124,710,378</b>	<b>\$689,379</b>

## Exhibit 4

### Kentucky Employees' Health Plan Rx Rebates as of June 30, 2025

Plan Year	Rebate Amount		
	Accounting	Incurred	
Q1 2022	\$46,693,187	\$52,280,922	Actual/Estimate
Q2 2022	\$52,280,271	\$55,234,519	Actual/Estimate
Q3 2022	\$56,253,088	\$57,807,703	Actual/Estimate
Q4 2022	\$66,075,378	\$58,129,290	Actual/Estimate
Q1 2023	\$57,552,152	\$64,688,835	Actual/Estimate
Q2 2023	\$65,764,561	\$74,383,841	Actual/Estimate
Q3 2023	\$69,736,334	\$79,841,542	Actual/Estimate
Q4 2023	\$86,352,168	\$81,896,346	Actual/Estimate
Q1 2024	\$75,303,265	\$82,833,181	Actual/Estimate
Q2 2024	\$74,252,427	\$92,517,137	Actual/Estimate
Q3 2024	\$79,150,447	\$101,393,225	Actual/Estimate
Q4 2024	\$92,486,878	\$107,431,408	Actual/Estimate
Q1 2025	\$94,761,663	\$110,062,439	Estimate/Estimate
Q2 2025	\$93,439,288	\$116,914,737	Estimate/Estimate

**Exhibit 5**  
**Kentucky Employees' Health Plan**  
**Premium Deficiency Reserve as of June 30, 2025**

<b>Calculation of the Premium Deficiency Reserve</b>	
(figures in \$millions)	
<b>Revenue</b>	
Medical and Pharmacy Premiums	\$1,078.5
HRA Waiver Premiums	\$25.2
Interest Income	\$4.7
Pharmacy Rebates	\$210.9
<b>Total Revenue (a)</b>	<b>\$1,319.3</b>
<b>Expenses</b>	
Medical and Pharmacy Claims	\$1,435.2
Administrative Fees (Medical & Pharmacy)	\$48.0
Operating Expenses/ERRP	\$5.0
HRA (waiver & select) Claims	\$44.9
<b>Total Expenses (b)</b>	<b>\$1,533.1</b>
<b>Net Gain/(Loss) (a) - (b)</b>	<b>(\$213.8)</b>

\* There is an estimated premium deficiency reserve of \$213.8 million as of June 30, 2025.