Claros Analytics: IBNR Estimate for period ending 2/28/2026

As of: 3/24/2026
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IBNR Reserve Estimate

	Per Capita Methodology	Completion Factor Methodology
Target Estimate	491,792	Arithmetic Mean
Low Range Estimate	369,077	40% CF's
High Range Estimate	803,914	90% CF's
Historic Estimate	617,226	24

Reserve Methodology: Chain-Ladder Method

The intent of the Chain-Ladder method is to estimate incurred but not reported (IBNR) claims and project ultimate claims for a specific defined period ending on the valuation date. The fundamental assumption on which the Chain-Ladder method depends is that historic claim payment patterns are indicative of future claims payment patterns.

Key Terms

Incurred Month:	The month in which a medical service is performed regardless of when the service is paid
Paid Month:	The month in which the medical service is paid
Valuation Date:	The last date where all claims that were incurred and paid on or before that date are measured.
Ultimate Incurred Claims:	The total claims expected to be incurred in a given month regardless of when they are paid Incurred and Paid Claims: for a given incurred month - the cumulative paid claims at the valuation date
Completion Factor (CF):	A factor developed for each month from the incurred month that when the incurred and paid claim at the valuation date are divided by the f actor projects the ultimate incurred claims for the incurred month
Cumulative Paid Ratio (CPR):	For a given incurred month - the ratio of the cumulative paid amount at a given month to the cumulative paid amount at the prior month

The series of steps in the Chain Ladder Method

1. Claims are compiled into a triangle with "Incurred Period" (month) as one axis and "Paid Period" as the other axis sorted by date..

2. Large claims are allocated and removed from the claim triangle. The presence of large claims in the claim triangle can distort the payment pattern and therefore distort the estimated reserve. Our methodology removes the impact of large claims for the purpose of calculating completion factors and adds them back when the ultimate claims for the incurred month is calculated. The implicit assumption is that large claims are complete. If this is not deemed to be a reasonable assumption the user has the option of not removing the large claims or making a manual adjustment to any incurred month.

3. For each "Incurred Month" a series of ratios ("cumulative paid ratio") is calculated that reflects the cumulative paid claims divided by the prior month's cumulative paid claims at each subsequent month from the incurral of the service.

4. The outlier "cumulative paid ratios" are removed from those used in calculating the average "cumulative paid ratio". The user specifies a smoothing standard for removal of outlier ratios (default 1 standard deviation from the mean ratio)

5. Average "cumulative paid ratios" are calculated. The user defines the number of ratios used in the average calculation.

6. Calculate completion factors - the reciprocal of each "cumulative paid ratio" multiplied by all subsequent ratios (to the defined fully complete month [24]) for each month from the incurred month. Example: completion factor for month 3 from incurred month = [1 / (CPR4 X CPR5 X … X CPR23)], completion factor for month 10 from incurred month = [1 / (CPR11 X CPR12 X … X CPR23)]

7. Completion factor completed claims are calculated. Incurred and Paid claims at each historic month from the Valuation Date are divided by the completion factor for the month from Valuation Date to calculate the initial CF completed Ultimate Claims for each incurred month.

8. Projected Per Capita Methodology - Alternate Ultimate Claim method applied to non credible completion factors. A fully credible Completion Factor is determined by the user and any month with a less than fully credible completion factor has an Alternate Ultimate Claim per capita calculated from the average per capita claim at the last fully credible completion factor month. The averaging period is determined by the user. The Alternate Ultimate per Capita claim is normalized due to changes in the population and environment over time and adjusted for the particular month of the year (days in month), seasonality (user optional) and multiplied by the enrollment in the month.
Projected Loss Ratio Methodology - Alternate Ultimate Claim method applied to non credible completion factors. A fully credible Completion Factor is determined by the user and any month with a less than fully credible completion factor has an Alternate Ultimate Claim per capita calculated from the average loss ratio determined from the last fully credible completion factor month. The averaging period is determined by the user. The Alternate Ultimate per Capita claim is normalized due to changes in the population and environment over time and adjusted for the particular month of the year (days in month), seasonality (user optional) and multiplied by the enrollment in the month

9. The Final Ultimate Incurred Claims for each month prior to the Valuation Date is calculated = [(CFcredibility X Completion Factor Ultimate Claim) + ((1-CFcredibility) X Alternate Ultimate Claim)] + Large Claims

10. The Incurred But Not Reported (IBNR) reserve at each month on or prior to the Valuation Date = the Final Ultimate Incurred Claims at each month on or prior to the Valuation Date - Incurred and Paid Claims for the month.

11. The Total Incurred But Not Reported (IBNR) reserve is the sum of all monthly IBNR's.

Assumptions

Valuation Date	2/28/2026
Last Month of Incurred and Paid Claims	2/1/2026
Ultimate Claims projected using claims paid through	8,476,198
Medical trend rate	9%
Fully credible completion factor	0.800
Completion factor averaging period	12
Smoothing standard deviation	1.50
Assumed fully complete month from incurred month	24
Alternate Ultimate Claim averaging period	12
Non- credible completion factor credibility used	0.000
Large claims allocated and removed from claim triangle	Yes
Pooling level for large claims	175,000
Seasonality adjustment used	No
Loss Adjustment Expense (LAE) %	0%

Target, High Range, and Low Range IBNR Reserve Estimates

The model creates a range of reserve estimates based on Completion Factors calculated from varying Cumulative Paid Ratios

Used in the IBNR Reserve Estimate

The Target estimate uses the mean of the Cumulative Paid Ratios - the user can choose to use a percentile of the ratios (i.e. 50%)	Arithmetic Mean
The High Range estimate uses the 90% (default) of the Cumulative Paid Ratios - the user can vary the width of the High / Low interval	90% CF's
The Low Range estimate uses the 10% (default) of the Cumulative Paid Ratios - the user can vary the width of the High / Low interval	40% CF's

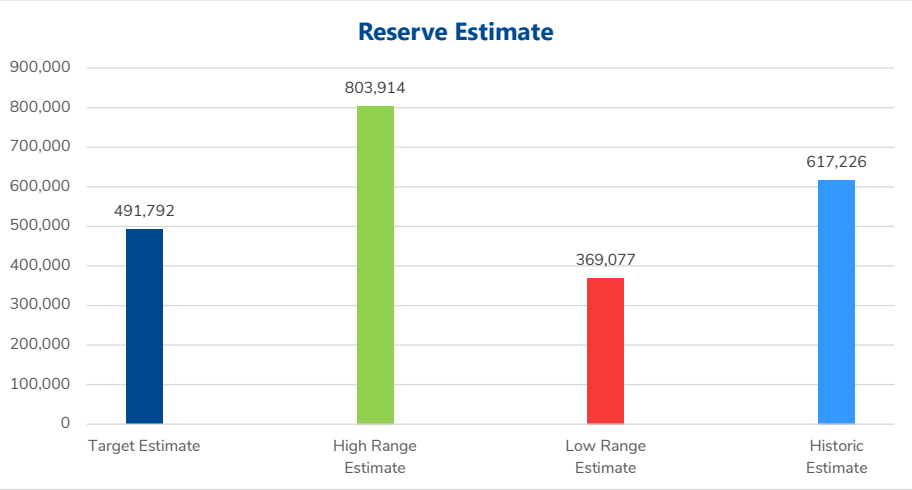
Historically Complete IBNR Reserve Estimate

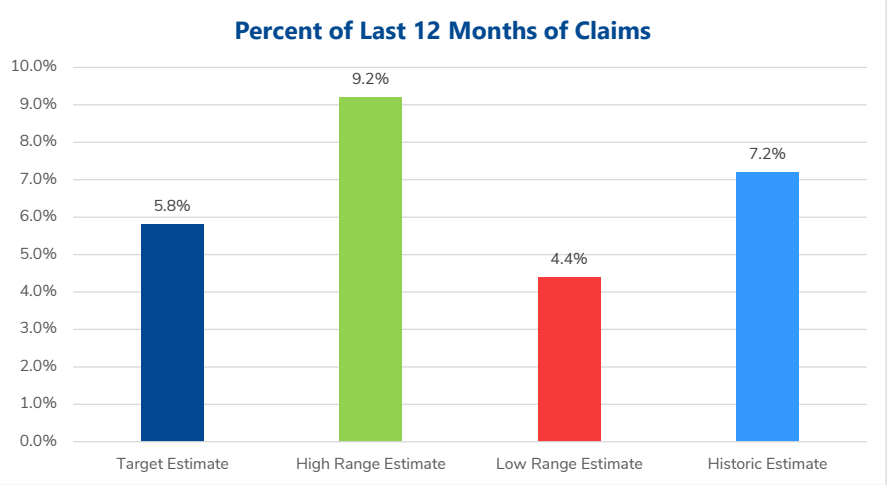
The Historically Complete Methodology develops the completion factors based on Incurred Months that are deemed to be fully complete based on the Fully Complete Month input parameter. The default assumption in the model is 24 months of runout is fully complete. The shortfall of this method is that does not use the most recent information and if payments patterns are changing these changes would not be represented in the IBNR. This methodology is considered an alternative methodology for that reason but could be a good reasonableness check.

Reserve Estimate Summary

Valuation Date	Feb-26
Completion Factor Methodology	Chain-Ladder
Methodology for Non Fully Credible CFs	Proj per Capita

	Target Estimate	High Range Estimate	Low Range Estimate	Historic Estimate
	491,792	803,914	369,077	617,226
	Arithmetic Mean	90%	40%	24
Percent of Last 12 Months of Claims	5.8%	9.2%	4.4%	7.2%





Simulated Reserve Estimate

Confidence Interval	Reserve Estimate	% of R12 Claims
10%	296,655	3.6%
20%	324,793	3.9%
30%	358,655	4.3%
40%	385,950	4.6%
50%	415,307	5.0%
60%	486,958	5.9%
70%	548,888	6.6%
80%	659,767	7.9%
90%	788,180	9.5%
95%	972,812	11.7%
Maximum	1,101,905	13.2%
Minimum	260,592	3.1%
Mean	504,510	6.1%

