

*EXHIBIT 4*

**State of Maryland Department of Health and  
Mental Hygiene**

**Review of Corporation's  
Maryland Medicaid HealthChoice  
Incurred But Not Reported Liability  
for Calendar Year 2012  
as of the Valuation Date 9/30/2013  
(IBNR Review)**

Prepared by:

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State of Maryland Department of Health and Mental Hygiene – IBNR Review

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## Introduction

\_\_\_\_\_ has been engaged by the \_\_\_\_\_ Department of Health and Mental Hygiene to review \_\_\_\_\_ Maryland Medicaid HealthChoice Incurred But Not Reported (IBNR) liability for claims incurred in calendar year 2012 remaining unpaid as of the valuation date of September 30, 2013. IBNR in this context is defined in the broad sense as the accrued claim amounts, known or unknown, remaining unpaid at the valuation date and including a reasonable margin for conservatism, plus an allowance for post-valuation-date expenses of adjudicating and paying such claims, i.e., the loss adjustment expense (LAE) liability.

The purpose of our work is to determine if a reasonable IBNR liability was reported. The amount should be sufficient to pay all run-out claims and their associated expenses without having excessive redundancies. This report and the associated Actuarial Opinion should not be used for any other purpose. Questions about the content can be directed to \_\_\_\_\_

## Data and Review Considerations

This review was performed in accordance with Actuarial Standards of Practice (ASOP) pertaining to this study. In particular, ASOP No. 5 – Incurred Health and Disability Claims, ASOP No. 23 – Data Quality and ASOP No. 41 – Actuarial Communications.

We relied on data from \_\_\_\_\_ prepared by \_\_\_\_\_ of \_\_\_\_\_ The data provided are in the form of lag triangles, which are tables that relate claims paid dates by month to their service (incurral) dates, case reserve reports, and additional accounting work papers. \_\_\_\_\_ provided lag tables separately for disabled inpatient, disabled outpatient, F&C inpatient, and F&C outpatient components. Our analysis used data from claims incurred from January 2011 through September 2013. Data were considered consistent and sufficient for this review. All data has been kept confidential and in physical control of \_\_\_\_\_

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## Claims Liability

The reported HealthChoice IBNR shown in the figure below.

IBNR claims reserve

2012 IBNR as of 9/30/2013 \$

## Methods and Analysis

Actuarial practice recognizes a great variety of methods to calculate an IBNR liability. For examples, the case reserve method directly values open claims on a case by case basis, projection methods project claims costs against exposure units, loss ratio methods project loss ratios multiplied by premium, and tabular methods make use of continuance tables. Our primary method of IBNR calculation is a "development" or "completion" method which estimates future payouts of accrued claims based on historical payment patterns. Past lag patterns predict the "completing" of the claim payout. Tables of completion factors are calculated to estimate the future payout on a month by month basis using ratios from the monthly pattern. The method we normally find most useful is termed "dollar weighted" because claim payment magnitudes are recognized as well as simple payment ratios. However, we reviewed claims using several methods. Additional methods included averaging factors for the past 24 months, for the past 12, for the past 24 but eliminating the two highest and two lowest, for the past 12 months and eliminating the highest & lowest, and a weighted average skewing to recent durations.

All of the claims tail valuation methods we tested produced negative estimates of various amounts before adjustments. This is not unusual in Medicaid claim tail patterns. The negative liability estimates were due to the predominance and timing of negative payment entries in the later months of the lag triangles, many beyond 24 months after the claim service date. These values are primarily recoveries from other insurers and providers. The amounts are small as a percentage of incurred claims, but significant relative to the size of the IBNR. No modifications were made in our primary calculation methods to discount or exclude the negative entries, but we recognize they can skew results in certain cases. Collection of routine recoverable amounts is expected to continue similarly as in the recent past.

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Completion factors can be skewed in other ways, such as changes in plan benefits, changes in claim administration and payment, variances in backlog, and exceptional large claims. We have no evidence of such factors influencing the claims data and so have not directly taken account of them except for recognition of case reserves for 3 large claims which were unpaid prior to 9/30/2013 as detailed by the Company and added as a direct adjustment of \$ . Appendix 2.

Due to the short term nature of the liabilities, we followed common practice and did not account for the time value of money.

Hindsight calculations were performed for recent past periods where data were available. These are actual run-outs of claims incurred for a twelve month period after nine months from the end of the period. These calculations provide a useful history of past results and indicate a possible range of reasonable holdings when the uncertainties resulting from the negative entries discussed above are considered.

We calculated an updated hindsight result of (\$ ) for claims incurred in 2011 and paid after 9/30/2012, that negative amount also due to significant anticipated recoveries. This amount is about a half million dollars higher than the net reserve estimate of (\$ ) in Appendix 2 of our 2011 claims tail valuation report one year ago. The large magnitude of the difference is due to distortion in the company's lag trials in the use of interim date fields instead of service dates. After that report, this date field error was corrected. At the time however, it shifted claim amounts in the claim triangle to columns representing fewer lag months, which distorted last year's valuation estimate in the negative direction.

The range of our unadjusted 9/30/2013 HealthChoice IBNR hindsight calculation results for claims incurred in 2012 appear in the table below.

### Net Hindsight Reserve Results (Not Loaded) Before Adjustments

Lowest -----	(\$	)
Average -----	(\$	)
Highest -----	(\$	)

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## Adjustments

The Company explained that recovery amounts received take longer to process than claim payments, resulting in exaggerated lag times for (negative) recovery amount entries in the claims lag triangle. This would tend to understate positive IBNR liability estimates or overstate them in the negative direction. The Company's accounting process compensates for this effect as precisely as possible by recording the quantity of recoveries for which they received payment amounts that have not been processed far enough to appear in the claim triangle. This Unapplied Cash Reserve adjustment added \$\_\_\_\_\_ to the Company's 9/30/2013 IBNR, and is also applied in Appendix 2 of this report.

Loss adjustment expenses (LAE) were considered. This liability is usually developed as a percentage of the unpaid claims liability and is typically between 4% and 9% added to the IBNR. \_\_\_\_\_ holds an LAE liability of \_\_\_\_\_% of net claim reserve. In our analysis we included an LAE of \_\_\_\_\_%.

In recognition that the determination of IBNR is an estimate, we considered a margin for uncertainty. \_\_\_\_\_ holds a margin of \_\_\_\_\_%. Typical margins have a range of \_\_\_\_\_% of unpaid claims. We used \_\_\_\_\_ in our analysis.

## Results and Conclusion

\_\_\_\_\_ reported \$\_\_\_\_\_ IBNR for HealthChoice, which we consider reasonable. Our preferred dollar-weighted method plus the adjustments discussed above produced an IBNR estimate of \$\_\_\_\_\_.

### **Current IBNR Study, 2012 Claims as of 9/30/2013**

Held by \_\_\_\_\_ \$\_\_\_\_\_

Recommended IBNR \_\_\_\_\_ \$\_\_\_\_\_

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## STATEMENT OF ACTUARIAL OPINION FOR

### Maryland Medicaid HealthChoice Benefits

September 30, 2013

I, \_\_\_\_\_, a member of the American Academy of Actuaries, am associated with the firm of \_\_\_\_\_ Inc. I was retained by \_\_\_\_\_, to render this opinion. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to managed care organizations.

I have examined the actuarial assumptions and actuarial methods used in determining reserves noted below as prepared for Maryland state regulatory officials, as of September 30, 2013

Item	Amount
Calendar year 2012 Incurred But Not Reported Claims	\$

In forming my opinion I relied on data prepared by \_\_\_\_\_  
Where practicable, I examined the data for reasonableness and consistency. In other respects, my examination included such review of the actuarial assumptions and actuarial methods and such tests of the calculations as I considered necessary.

In my opinion the amounts carried in the balance sheet on account of the actuarial items identified above:

- (A) Are computed in accordance with presently accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles;
- (B) Are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;
- (C) Meet the requirements of law and regulations of the state of Maryland and are at least as great as the minimum aggregate amounts required by the state in which this statement is filed;
- (D) Include provision for all actuarial reserves and related statement items which ought to be established.

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The actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis of this statement of opinion.

It does not include an opinion regarding the adequacy of reserves and related actuarial items when considered in light of the assets which support them.

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April 28, 2014

Address .....

Telephone #