

**2018 Actuarial Analysis of the  
New Mexico Patients Compensation Fund**

July 2019



3109 Cornelius Drive  
Bloomington, IL 61704  
309.807.2300  
pinnacleactuaries.com

*Commitment Beyond Numbers*

# Table of Contents

<b>Section</b>	<b>Page</b>
Executive Summary .....	1
Unpaid Claims Liabilities .....	1
PCF Surplus/Deficit .....	2
Expected Surcharge Levels.....	2
Background .....	3
Data Sources .....	4
PCF Financial Statement Data.....	4
Industry Rate Filings.....	5
PCF Claims Data .....	5
Discussion and Analysis .....	6
Estimated Unpaid Claims Liabilities as of December 31, 2018.....	6
Methodology.....	7
PCF Surplus/Deficit .....	10
Expected Surcharge Levels.....	10
Glossary of Terms & Abbreviations .....	11
Legal Disclosures.....	14
Distribution and Use .....	14
Reliances and Limitations .....	14

## Exhibits

# 2018 Actuarial Analysis of the New Mexico Patients Compensation Fund

## ***Executive Summary***<sup>1</sup>

The New Mexico Patients Compensation Fund (PCF) serves a vital role in supporting the overall health of the medical professional liability insurance (MPLI) system in New Mexico. The PCF provides excess coverage that stabilizes the operating results of participating insurers and encourages competition which leads to greater availability and affordability of coverage. In New Mexico and other states, a competitive MPLI market tends to attract new physicians leading to greater access to care. The coverage provided by the PCF requires the use of an occurrence coverage form, preferred by healthcare providers, with limits that provide comprehensive coverage to ensure that injured patients receive appropriate compensation for their injuries. As a result, all stakeholders in the New Mexico healthcare system benefit in some way from a healthy PCF.

One way that the New Mexico Office of Superintendent of Insurance (OSI) ensures the ongoing health of the PCF is to conduct a periodic actuarial review. This review examines several aspects of the PCF including analyses of indicated reserves for unpaid losses and appropriate assessment surcharges for upcoming policy periods.

Through a review of a number of both publicly available and proprietary data sources, Pinnacle has come to a number of key conclusions regarding a number of aspects of the PCF. The highlights of our findings regarding the various issues include:

### **Unpaid Claims Liabilities**

- Pinnacle estimates the amount of losses still to be paid for all claims occurring prior to December 31, 2018 to be approximately \$131.5 million on a nominal basis, \$119.0 million on a discounted basis using a 3.5% discount rate, and \$143.5 million when the discounted reserves reflect a risk margin to increase to the statistical confidence to 90%. These are all increases from the values as of December 31, 2017 of \$100.9 million (nominal), \$91.2 million (discounted) and \$109.9 million (discounted at 90% confidence).

---

<sup>1</sup> Third parties receiving only this Executive Summary should recognize that the furnishing of this summary is not a substitute for their own due diligence and should place no reliance on this summary that would result in the creation of any duty or liability by Pinnacle to the third party. Pinnacle is available to answer any questions regarding the information contained in the Executive Summary.

### **PCF Surplus/Deficit**

- The current PCF Fund balance of approximately \$87.1 million as of December 31, 2018, when compared to Pinnacle's estimate of indicated nominal loss reserves of approximately \$131.5 million, suggests a Fund deficit position of \$44.4 million, or just over 50% of the current Fund balance. This is an improvement of \$11.0 million since our analysis as of December 31, 2017.
- Reflecting reserves on a present value basis, using a 3.5% discount rate, results in a Fund deficit of approximately \$31.9 million. This is an improvement of \$13.7 million since our analysis as of December 31, 2017.
- If discounted loss reserves are increased to the 90% confidence level, the resulting reserves indicate a \$56.4 million PCF surplus deficit.

### **Expected Surcharge Levels**

- Pinnacle's prospective rate level indication for physicians & surgeons suggests an increase of +13.8% on an expected value basis. If adjusted to a 90% level of statistical confidence, an indicated increase of +37.2% results. This estimate only reflects expected future losses and does not contemplate funding to reduce the indicated Fund deficit.
- Given the magnitude of the current indicated Fund deficit, a small additional increase in surcharges to begin reducing the deficit would be reasonable from an actuarial perspective.
- Pinnacle's rate level indication for hospitals suggests a decrease of -4.5% on an expected value basis. At a 90% level of statistical confidence, the indicated increase is +15.2%. Stable loss ratios in the three most recent years support keeping in assessments level.
- We received a more accurate breakdown of losses for this analysis detailing the split of PCF payments when both a physician and hospital were named as providers on a claim. This breakdown showed that some payments originally attributed to hospitals were actually made on behalf of physicians, not the hospital. This resulted in a shifting of some payments from our prior analysis.

## **Background**

The PCF was established in 1976 to provide for the payment of claims in excess of a primary limit of \$100,000 per incident which was provided by private insurers. This resulted in the PCF providing coverage with a non-medical indemnity limit of \$400,000 per incident (to reach the state damage cap on non-medical damages), plus unlimited medical benefits. Effective July 1, 1991, the primary limit was increased to \$150,000 on new and renewal policies, thereby reducing the PCF's liability limit to \$350,000 non-medical indemnity, plus unlimited medical. The PCF's liability was further reduced to \$300,000 effective April 1, 1992 when the primary limit was increased to \$200,000. Most recently, an increase in the maximum non-medical indemnity amount to \$600,000 effective April 1, 1995 increased the PCF liability retention to \$400,000 non-medical indemnity, plus unlimited medical.

The unlimited medical feature of the New Mexico PCF presents significant risk for the PCF and additional variability in estimating the current liabilities and prospective rates. Since the detailed data available to estimate the unpaid claims liabilities and indicated surcharge levels only goes back to calendar year 2000, some adjustments are required to this data. These adjustments, as well as the methods and assumptions used to estimate indicated loss reserves and PCF surcharges are detailed later in the report and in the attached exhibits.

Pinnacle Actuarial Resources, Inc. (Pinnacle) has been retained by the New Mexico Office of Superintendent of Insurance (OSI) to conduct a comprehensive actuarial analysis of the New Mexico Patients Compensation Fund (PCF). This analysis will contain several components including evaluation of:

- the estimated ultimate liabilities for losses incurred by the New Mexico Patients Compensation Fund (PCF) as of December 31, 2018, and
- recommended PCF assessment surcharges to fund the operations of the PCF for the effective date of September 1, 2019.

Pinnacle is an Illinois corporation that has been in property and casualty actuarial consulting since 1984. Our actuarial consultants make Pinnacle one of the largest property/casualty actuarial consulting firms in the U.S. We specialize in insurance pricing, loss reserving, alternative markets, legislative costing, market analysis and financial risk modeling.

Pinnacle has established a reputation as a provider of unbiased, independent, actuarially sound analyses and reports. This reputation is demonstrated in the variety of clients that have engaged us for projects similar to this one. Clients that have engaged Pinnacle in areas of medical professional liability

including governmental insurance programs, legislative costing and market evaluation have included healthcare industry associations (e.g. American Medical Association, Oregon Medical Association, Medical Society of Virginia), insurance departments and governmental panels (e.g. Connecticut, Florida, Illinois, Indiana, Maine, Michigan, New York, Ohio, Oregon), and government insurance programs, (e.g. Florida Neurological Injury Compensation Association, New Mexico Patient Compensation Fund, New York Medical Indemnity Fund, Virginia Birth Related Neurological Injury Compensation Program, Wisconsin Patients Compensation Fund). Pinnacle may be unique in the breadth of parties involved in the medical professional liability insurance system that have engaged us.

### ***Data Sources***

Our analyses use a number of data sources. The data sources are categorized as follows:

1. PCF Financial Statement Data
2. Industry Rate Filings
3. PCF Claims Data

A brief description of the data sources utilized in each area along with a description of the key data elements and potential limitations of the data follows for each category.

#### **PCF Financial Statement Data**

Unlike insurance companies who are required to provide extensive, detailed financial information annually that complies with a standardized format prescribed by the National Association of Insurance Commissioners (NAIC), most governmental insurance programs, such as the PCF, have much simpler financial reporting requirements.

Pinnacle was provided a single document, one page in length, related to and supporting the financial statements of the PCF. While in analyses prior to 2015 monthly cash flows in and out of the PCF were provided dating back to 1996 (including surcharge collections, loss payments, interest earned, underwriting expenses and claims handling expenses), for this analysis as well as the 2015 and 2017 analyses we were provided only with loss, expense and operating payments; surcharges; and the total PCF funds for calendar years 2014 through 2018. However, for this analysis we were also provided with categories of operating expenses to consider in the surcharge evaluation as well as significantly revised PCF total funds.

### **Industry Rate Filings**

Insurance company rate filings provide valuable insights into individual insurance company perceptions of prospective claim trends. Many of these filings include rigorous actuarial analyses of claim frequency, severity and pure premium trends. Due to data limitations, these trend analyses are often performed on countrywide data to increase statistical credibility. Pinnacle reviewed several publicly available filings for medical professional liability insurance (MPLI) providers and government insurance programs in New Mexico and other states to assess trends in the MPLI marketplace and for MPLI excess insurance programs in particular. Pinnacle relied on this information without independent review or verification. However, given that information had been through regulatory scrutiny, we are comfortable that the information is appropriate for the limited role it plays in our analysis.

### **PCF Claims Data**

The enabling statute for the PCF (41-5-25) requires that the PCF surcharges be based on data obtained from New Mexico experience if available. When Pinnacle began performing these studies for OSI, credible New Mexico loss data in the PCF layer was only available on a calendar year basis which is not appropriate for reserving or ratemaking. As a result, prior analyses relied on New Mexico data for losses limited to \$100,000 from the two major primary insurers in New Mexico that participate in the PCF.

Starting with our 2010 study, OSI has been able to provide detailed claim data for most claims paid since 2000. Most of this data had valid loss dates and payment dates as well. In addition, a table of open claims with loss date information was also provided. These databases enabled Pinnacle to develop a much more direct approach to estimating indicated loss reserves as well as prospective assessment surcharge levels. However, for the 2015 analysis, only calendar year 2014 and 2015 aggregate loss payments were provided. We were again provided with detailed claim data for the 2017 and current analyses, which show that the prior estimated calendar year 2014 and 2015 payments were much too high. We have relied upon the individual claim data provided to us for the current analysis and prior analyses.

Starting with the 2017 analysis and continuing in the current analyses, significant effort has gone into improving the loss database provided to us by OSI. These improvements now allow us to sort payments by hospital/provider more precisely. We anticipate that this improvement to the database going forward will provide material insights into the PCF payments.

We were also provided with specific information regarding two large groups of claims. For the first group (Batch #1), we understand that early in 2012, a group of approximately 69 claims associated with a single physician and medical center were all settled. Most of these claims occurred in the 2007-

2009 period. It has been represented to us that the settlement paid by the PCF on Batch #1 claims is \$11.7 million. We were provided the approximate number of claims per accident year by the department and have reflected this settlement across accident years 2006-2009, allocating the settlement by the number of claims falling in each accident year.

The second group of claims (Batch #2) were made for a single physician and associated corporations for a total of 31 incidents in accident years 2005-2010. These claims were settled for \$10,182,000. We have allocated this amount based on the claim counts in each accident year from 2005 through 2010.

Please note that for the purposes of this report, the accounting date and the valuation date was December 31, 2019. The review date (the cutoff date for including information to the actuary) was May 22, 2019.

## ***Discussion and Analysis***

### **Estimated Unpaid Claims Liabilities as of December 31, 2018**

Pinnacle estimates the amount of losses still to be paid for all claims occurring prior to December 31, 2018 to be approximately \$131.5 million on a nominal basis, \$119.0 million on a discounted basis using a 3.5% discount rate, and \$143.5 million when the discounted reserves reflect a risk margin to increase to the statistical confidence to 90%. These results are summarized in Exhibit 1. These amounts represent estimates of the losses that remain to be paid from the current Fund balance if the PCF had ceased operations as of December 31, 2018. These are all increases from the values as of December 31, 2017 of \$100.9 million (nominal), \$91.2 million (discounted) and \$109.9 million (discounted at 90% confidence).

The present value as of December 31, 2018, assuming a 3.5% annual discount rate, of unpaid losses on claims occurring through December 31, 2018 is estimated as \$119.0 million. The \$31.9 million difference between the discounted losses and the estimated December 31, 2018 PCF Fund balance (\$87.1 million) represents the present value of the expected deficit between the currently available funds and the funds needed to meet all outstanding claim obligations as of December 31, 2018. The current PCF Fund balance is also \$44.4 million lower than the nominal reserve estimate. If discounted loss reserves are increased to the 90% confidence level, the resulting reserves indicate a \$56.4 million PCF surplus deficit.



### **Methodology**

Pinnacle's estimates of ultimate losses for the PCF were developed based on four actuarial methods for the physician data and three methods for the hospital data. The methods used are paid loss development, expected loss ratio method, paid loss Bornhuetter-Ferguson (B-F) method, and average paid claim development (also known as a frequency and severity or counts and averages method; this method was not used with the hospital data). These methods are among the most commonly used methods and would be considered generally accepted actuarial methods. The intended measure of this approach is an actuarial central estimate of the ultimate losses and indicated loss reserves. The calculations and assumptions underpinning these methods are documented in Exhibits 3 through 8 for the physician data and Exhibits 12 through 13 for the hospital data.

The paid loss development method uses historical loss payment patterns to project actual payments to an ultimate settlement basis. Estimates of the percentage of additional development expected during a given interval between valuations (link ratios or age-to-age factors) based on historical development of the combined physician and hospital experience are used to estimate the expected amount of ultimate loss that is paid as of a given valuation. These factors "to ultimate" are applied to the latest paid loss data for each accident year to compute an estimate of ultimate losses. Estimates produced using this method are not affected by changes in case reserve adequacy or open claim frequency that might have occurred during the review period. The inability to respond to the presence or absence of large outstanding claims is a significant weakness of this method. This method may also be susceptible to changes in claims settlement philosophy and/or payment speed. The results of the paid loss development method are summarized in Exhibits 4 and 13. The paid loss development triangles and selected age-to-age factors are shown in Exhibit 15.

The expected loss ratio method assumes that over the long run the ratio of ultimate losses to earned premiums, or in this case assessment surcharges, will remain stable. The long term loss ratio for the physician segment is assumed to be 115.0% for the 2000 and subsequent years based on the historical experience of the program, up from 110.0% in the 2017 analysis, and the loss ratio for the hospital segment is assumed to be 98.0%, a significant drop from the 120.0% assumed in the 2017 analysis reflecting the shift in losses paid from the hospital to physician segment. The estimates of ultimate losses are computed as the assessments for each year times this long term average loss ratio. The results of this method are shown in Exhibits 3 and 12, Page 2.

The B-F method estimates ultimate losses using a combination of a priori expected losses and loss development techniques. If we define:

- A = Paid Losses
- B = Expected Percentage of Ultimate Losses Reported
- C = *a priori* Expected Losses, equal to historical assessments times long term loss ratio of 115.0% or 98.0% depending on the segment

then the estimated ultimate losses using the B-F technique are:

$$A + [C \times (1 - B)].$$

B-F ultimate loss estimates have the advantage of stability. This is important for coverages with long periods of loss development like MPLI. This stability means the method's estimates do not over-react to short term or one-time changes in development patterns that do not impact long-term development expectations. They also do not overreact to the presence or absence of large losses early in the development of a portfolio of claims. Conversely, B-F estimates have the disadvantage of being slow to respond to real changes in underlying loss development behavior. The *a priori* losses were based on the expected loss ratio method previously described. This method is summarized in Exhibits 3 and 12, Page 1.

The counts and averages method estimates ultimate losses by multiplying an estimate of the ultimate number of claims by a selected average cost per claim. This method was only used on the physician segment as the hospital data is not yet robust enough to support the method. The results of this method are contained in Exhibits 5 through 8 and summarized in Exhibit 5. The supporting development patterns are contained in Exhibit 16.

The estimated number of claims has been selected based on three methods: a closed claim development method, a B-F method, and a frequency method looking at the long term ratio of claims closed with payment to assessment revenues. Similarly, average claim costs (severities) have been estimated using paid claim severity development and applying a smoothing approach to adjust for volatility between years.

These four methods are standard actuarial reserving techniques for estimating claim liabilities. Selected ultimate loss estimates for the PCF layer of coverage by year were then made based on the results of these four methods for each segment (three methods for the hospitals segment). These estimates rely heavily on the B-F method and expected loss ratio method in the more recent years.

Exhibit 1, Page 3 contains a detailed comparison of the selected ultimate losses compared to the results of our previous study. Estimated ultimate losses for years 2004 and prior have all produced reductions since the last study, while the estimates for 2005 through 2012 all increased (in the case of 2012, the increase was \$3.8 million, or 42% of the prior estimate). Estimates for 2013 – 2017 decreased somewhat, except for 2015 which saw a modest increase.

Because of the often significant delay between the occurrence of a PCF claim and its payment, a material discount to bring the ultimate claim payments to a present value reflecting the time value of money exists. Exhibit 1, Page 2 contains the analysis developing estimates of the PCF present value factors based on a 3.5% rate of return and the estimated PCF excess payment pattern. This analysis assumes claim payments are made mid-year on average.

The financial operations of the PCF are similar to a commercial insurer, but one major difference is that the PCF does not maintain a large capital/surplus account. However, in any given year, the actual experience of the PCF can deviate widely from the expected experience. Unanticipated changes in the social, legal or economic environments can also adversely affect PCF experience. An insurer's capital/surplus can assist in withstanding such deviations in experience. By adding a margin for the risk of adverse deviation to indicated loss reserve (and also funding levels), the PCF can be protected in a similar manner.

There are various rules of thumb used in the insurance industry (some mandated by state regulations) that specify the size of the required risk margin (surplus). One state, for example, requires a margin sufficient to assure that funds will be sufficient to meet all claims obligations under 90% of all claims scenarios on a discounted basis. While there are a number of methods for estimating a risk margin, a reasonable margin can be estimated via a simulation model.

We constructed a simulation model that randomly generated possible aggregate loss outcomes for each of the PCF's projected unpaid claims that will ultimately result in payments. Each random outcome generated by a model is called a trial. A trial consists of simulating the individual and aggregate claim results for the PCF for the coming years. We generated 10,000 trials for each model and produced a distribution of aggregate PCF losses. We then compared the average outcome with the outcome at the 90th percentile to compute the risk margin for the 90% confidence level. Exhibit 1, Page 1 summarizes Pinnacle's selected ultimate losses and ultimate loss reserves as of December 31, 2018. These selected reserves are then adjusted for discounting at 3.5% annually and a risk margin to increase statistical confidence to the 90% level. A similar simulation model was created for the risk margin applied to the prospective rate level indication and a similar approach was used to develop the rate indication at the 90% confidence level.

### **PCF Surplus/Deficit**

The current PCF Fund balance appears to be approximately \$87.1 million as of December 31, 2018. When compared to Pinnacle's estimate of indicated loss reserves of approximately \$131.5 million, this would suggest a Fund deficit position of \$44.4 million as of December 31, 2018. The indicated Fund position remains a deficit of approximately \$31.9 million when losses are considered on a discounted basis using a 3.5% discount rate.

However, it is imperative to understand that the application of discounting to these unpaid claims liabilities strongly indicates the need to add an explicit risk margin. For example, section 3.6 of Actuarial Standard of Practice No. 20 promulgated by the Actuarial Standards Board entitled, "Discounting of Property/Casualty Unpaid Claim Estimates" states that, "The actuary should be aware of the relationship between discounting unpaid claim estimates and risk margins. Discounting an unpaid claim estimate diminishes the [implicit] margin in an undiscounted unpaid claim estimate."

The standard allows both implicit margins (such as the nominal reserve estimate) and explicit margins (such as the 90% risk margin developed by Pinnacle). If discounted reserves are increased to the 90% confidence level, the resulting reserves of \$143.5 million indicate a \$56.4 million PCF surplus deficit.

### **Expected Surcharge Levels**

A table of current and recommended PCF surcharges by physician class is shown in Exhibit 9. Recommended surcharges were computed based on both an expected value basis and a 90% confidence level. The indicated percentage rate level changes are derived in Exhibit 10. On an expected value basis the indicated surcharge change is an increase of +13.8%, while at the 90% confidence level an indicated increase of +37.2% is indicated. Including the risk margin improves the likelihood that rates will be sufficient to cover all claims liabilities for the upcoming exposure year.

Investment income as an offset to the otherwise required revenue is recognized in both sets of rates using a 3.5% annual discount rate. Loss ratios were selected based on historical results and reflect recent loss ratio deterioration. The rates include provisions for other expenses, such as administration and medical/legal panels, as well as losses. However, since allocated loss adjustment expenses (ALAE) have historically been paid by the primary carrier, no ALAE provision is included in the PCF rates. Exhibit 17 shows selected ratios of expenses to either losses or surcharge revenues based on the PCF's historical paid expenses and losses. There is also no provision for profit and contingencies in the rate level indications, other than the risk margin.

## ***Glossary of Terms & Abbreviations***

The definitions included in this glossary are intended to be practical definitions to assist non-technical readers in understanding the key technical contents of this report.

Accident Year – A method of organizing insurance loss and loss adjustment expense data according to the year in which the accident or event occurred.

Annual Statement – A detailed financial report of an insurance company, required to be filed with state insurance regulators in a specified format using insurance-specific accounting rules.

Calendar Year – A method of organizing insurance loss and loss adjustment expense data according to the year in which the financial transaction (e.g., a loss payment or reserve increase) occurred.

Case Reserves – A financial provision for the potential liability associated with known, unpaid claims.

Claims-Made Coverage – An insurance coverage form that provides reimbursement for claims reported during the coverage period.

Damage Cap – An amount imposed as a limit on claim damages. In New Mexico, this cap applies only to non-medical indemnity payments.

DCC – Defense and Cost Containment, loss adjustment expenses specifically attributable to the defense of a claim or cost containment procedures. Also called DCCE.

Earned Premium – The portion of an insurance policy's premium for which the coverage has been provided.

Experience Rating – A method of adjusting insured premium derived from manual rates for insured historical loss experience to the extent that it is predictive of future loss results.

Frequency – The number of claims per unit of exposure, such as physicians or beds.

Incurred but not Reported (IBNR) reserves – A provision for unpaid claims liabilities intended to provide a provision for both unknown/unreported claims events and additional development on known claims.

Incurred Loss – Paid losses plus Case Reserves.

Indemnity – The sum paid by the insurer to the insured by way of compensation for a particular loss suffered by the insured.

LAE – Loss Adjustment Expenses; insurance company expenses associated with settling claims. LAE includes both unallocated loss adjustment expenses (ULAE, which is similar to Adjusting and Other Expense, AOE) and allocated loss adjustment expenses (ALAE, which is similar to DCC).

Limit – The most the insurer is obligated to pay for loss in any one occurrence.

Loss Cost – The ratio of actual losses to a company's subject matter exposure for the same period.

Loss Ratio – The ratio of some measure of losses (typically paid or incurred) to some measure of premium.

Patient Compensation Fund (PCF) - a medical malpractice insurance mechanism, created by state law, designed to increase professional liability coverage availability and/or affordability primarily by providing coverage for a specific type of injury or an excess layer of coverage.

Primary Carrier – The insurance company issuing the insurance policy to the insured and typically providing the lowest or primary layer of coverage. This is compared to a reinsurer or excess carrier providing coverage to the primary insurer for higher loss limits.

Pure Premium – The provision in the rate per exposure unit to pay losses.

Rate – The price per exposure unit for insurance coverage.

Reinsurance – A mechanism by which an insurance company can transfer some of their insurance risk to another insurer.

Report Year – A method of organizing insurance loss and loss adjustment expense data according to the year in which the accident or event was reported to the insurer, regardless of when it occurred.

Risk Margin – A factor added to indicated ultimate losses, loss reserves or funding estimates to increase statistical confidence to a higher level.

Severity – The average cost or payment amount of a claim.

Surcharges – For the PCF, assessments paid by insureds to fund benefits payments. Akin to premiums, these surcharges are added to the premiums charged by primary insurers so insureds can make a single payment for both primary and PCF coverage.

Territory – The geographic area within which a carrier provides coverage.

Trend – The direction and amount that rates, premium, or losses tend to move over time.

Written Premium – The entire amount of premium on a policy contract.

## ***Legal Disclosures***

### **Distribution and Use**

This report is being provided to the OSI solely for their internal use. It is understood that this report may also be distributed to representatives of the New Mexico Medical Society, New Mexico Bar Association, as well as other makers of public policy and various stakeholders in the healthcare industry in the State of New Mexico. Distribution to these parties is granted on the conditions that the entire report be distributed rather than any excerpts and that all recipients be made aware that Pinnacle is available to answer any questions regarding the report. In the event our report is distributed to other parties due to statute or regulations, or by agreement of Pinnacle and the OSI, we require that the report and supporting exhibits be distributed in their entirety. Pinnacle advises that any recipient have their own actuary review the work. Pinnacle does not intend to benefit any third party recipient of its work product or create any legal duty from Pinnacle to a third party even if Pinnacle consents to the release of its work product to such third party.

In addition, the OSI may desire to distribute the Executive Summary separately to summarize key findings for broader distribution. This distribution is also granted. Individual findings may also be referenced in press releases and other public communications along with proper citation of the report.

Third party users of any of the elements of this report should recognize that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data, computations, or interpretations contained herein that would result in the creation of any duty or liability by Pinnacle to the third party.

Any reference to Pinnacle in relation to this report in any reports, accounts, or other published documents or any verbal reference issued by PCF is not authorized without prior written consent and then only if the complete report is provided.

### **Reliances and Limitations**

Judgments as to conclusions, recommendations, methods and data contained in this report should be made only after studying the report in its entirety. It should be understood that the exhibits, graphs and figures are integral elements of the report. These sections have been prepared so that our actuarial assumptions and judgments are documented. Pinnacle is available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.



We have relied upon a great deal of publicly available and proprietary data, without audit or verification. Pinnacle reviewed as many elements of this data and information as practical for reasonableness and consistency with our knowledge of the insurance industry. It is possible that the historical data used to make our estimates may not be predictive of future experience in New Mexico. We have not anticipated any extraordinary changes to the legal, social or economic environment which might affect the size or frequency of medical malpractice claims beyond those contemplated in the proposed legislative changes.

Our analysis is based on closed and open claims information provided by OSI in prior analyses as well as closed claim information for the years 2012 through 2018. In the data provided for prior analyses, there were a small number of claims that did not contain accurate loss dates. In addition, there were a small number of claims handled in 2000-2001 by a secondary third party administrator (TPA) that were not contained in the data we were provided. However, we believe the methods and assumptions incorporated into our analysis effectively recognize these shortcomings in the data. If it is subsequently discovered that the underlying data or information provided to us is materially in error, the calculations and conclusions herein will not be correct and will need to be revised. We expect OSI to notify us promptly if any such data issues are subsequently discovered.

The payment pattern used in our analysis for deriving PCF's present value factor and estimated unpaid losses is based on the data available from PCF claims payments for most claims since 2000 through 2018. We also reviewed a variety of external databases for other PCFs and MPLI reinsurance to validate the reasonableness of the payment pattern for the PCF excess layer. The volatility of the payment patterns for this layer of coverage on a relatively small portfolio of claims introduces additional risk into the estimation process.

Many actuarial estimates, including loss and loss adjustment expense reserves, future premium level estimates and potential legislative impacts, are subject to potential errors of estimation due to the fact that the ultimate liability for claims is subject to the outcome of events yet to occur, e.g., jury decisions, judicial interpretations of statutory changes and attitudes of claimants with respect to settlements. Pinnacle has employed techniques and assumptions that we believe are appropriate, and we believe the conclusions presented herein are reasonable, given the information currently available. It should be recognized that future loss emergence will likely deviate, perhaps substantially, from our estimates.

A source of variation is introduced in estimating outstanding liabilities on a discounted basis. That is, besides the risk of underestimating or overestimating the overall amount of nominal loss liabilities, there is the additional risk that the future yield on the underlying assets will differ from our assumed

discount rate. Actual loss payments could occur materially more rapidly or more slowly than projected, due to random variations and the timing of large claim payments. The yield on assets supporting the liabilities may be affected by capital gains or losses, or significant changes in economic conditions. The 3.5% interest rate used in the discounting calculation was provided to us by the OSI and we are expressing no opinion on the appropriateness of this interest rate.

The mathematical techniques underlying our estimate of the risk margin are intended to provide an approximation of the potential variation in loss costs. It should be noted that this estimate reflects only the potential “process” variation (i.e., the random variation inherent in the claim process) based on the assumed loss distributions and the selected parameters. Additional “parameter” variation exists due to the risk that the selected theoretical loss distributions and their parameters will not be predictive of the actual loss distributions. Of particular concern is the potential for unexpected increases in the inflation of the losses.

A simulation model of this type cannot possibly capture all or completely describe any of the dynamic forces that impact medical professional liability losses. Such a model, however, can provide considerable insight into the range of potential fluctuation of losses.

Pinnacle is not qualified to provide formal legal interpretations of state legislation. The elements of this report that require legal interpretation should be recognized as reasonable interpretations of the available statutes, regulations, and administrative rules. State governments and courts are also constantly in the process of changing and reinterpreting these statutes.

# Exhibits and Appendices

## Estimated Unpaid Claims Liabilities & Surcharge Levels

- Exhibit 1. Reserve Summary; Calculation of Discount Factor; Compare (pages 1-3)
- Exhibit 2. Physicians & Surgeons - Selected Ultimate Losses
- Exhibit 3. Physicians & Surgeons - B-F and Expected Loss Ratio Methods
- Exhibit 4. Physicians & Surgeons - Paid Loss Development Method
- Exhibit 5. Physicians & Surgeons - Frequency and Severity Method
- Exhibit 6. Physicians & Surgeons - Paid Claim Projection Based on B-F Method
- Exhibit 7. Physicians & Surgeons - Paid Claim Projection Based on Frequency Method
- Exhibit 8. Physicians & Surgeons - Paid Claim Development Method
- Exhibit 9. Development of Physician Surcharge Estimates
- Exhibit 10. Physicians & Surgeons – Indicated Rate Change
- Exhibit 11. Hospitals - Selected Ultimate Losses
- Exhibit 12. Hospitals - B-F and Expected Loss Ratio Methods
- Exhibit 13. Hospitals - Paid Loss Development Method
- Exhibit 14. Hospitals - Indicated Rate Change
- Exhibit 15. Combined - Historical Loss Experience
- Exhibit 16. Combined - Historical Claim Experience
- Exhibit 17. Expense Analysis

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Reserve Summary**

Exhibit 1  
Page 1

Accident Year	Physician & Surgeons			Hospitals			Combined Selected Ultimate Reserves	Discount Factor	Estimated Discounted Reserves	Indicated Risk Margin @ 90%	Estimated Discounted Reserves @ 90%	
	Selected Ultimate Losses	Paid Losses	Selected Ultimate Reserves	Selected Ultimate Losses	Paid Losses	Selected Ultimate Reserves						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
2000	6,560,000	6,560,000	0				0	0.000	0	1.206	0	
2001	9,261,652	9,261,652	0				0	0.000	0	1.206	0	
2002	9,309,500	9,309,500	0				0	0.983	0	1.206	0	
2003	6,602,760	6,596,189	6,572				6,572	0.983	6,460	1.206	7,790	
2004	5,497,464	5,482,500	14,964				14,964	0.970	14,513	1.206	17,503	
2005	9,807,180	9,776,657	30,523				30,523	0.955	29,139	1.206	35,142	
2006	8,185,026	8,140,629	44,397				44,397	0.945	41,948	1.206	50,589	
2007	19,120,000	19,005,969	114,031				114,031	0.938	106,994	1.206	129,035	
2008	19,580,000	19,398,176	181,824				181,824	0.934	169,798	1.206	204,776	
2009	12,040,000	11,817,704	222,296	388,421	375,000	13,421	235,717	0.931	219,405	1.206	264,602	
2010	18,140,000	17,709,906	430,094	862,277	835,000	27,277	457,372	0.929	424,726	1.206	512,220	
2011	19,610,000	18,972,165	637,835	2,106,190	2,041,563	64,627	702,462	0.923	648,120	1.206	781,633	
2012	11,630,000	10,674,408	955,592	1,040,513	955,000	85,513	1,041,105	0.938	976,850	1.206	1,178,081	
2013	8,760,000	5,781,250	2,978,750	858,816	625,898	232,918	3,211,668	0.950	3,052,627	1.206	3,681,468	
2014	14,340,000	7,484,434	6,855,566	753,652	88,826	664,826	7,520,391	0.959	7,208,299	1.206	8,693,208	
2015	11,140,000	1,240,000	9,900,000	2,114,649	737,868	1,376,782	11,276,782	0.943	10,631,150	1.206	12,821,167	
2016	13,950,000	1,700,000	12,250,000	9,286,945	925,000	8,361,945	20,611,945	0.923	19,028,487	1.206	22,948,355	
2017	22,676,596	500,000	22,176,596	18,271,430	175,000	18,096,430	40,273,026	0.902	36,320,907	1.206	43,803,013	
2018	24,650,739	0	24,650,739	21,164,351	0	21,164,351	45,815,090	0.875	40,083,764	1.206	48,341,019	
Total	250,860,917	169,411,138	81,449,779	56,847,243	6,759,154	50,088,089	131,537,868		118,963,186		143,469,603	
(13)	Estimated 12/31/2018 Fund Balance							87,104,681		87,104,681		87,104,681
(14)	Difference							-\$44,433,187		-\$31,858,505		-\$56,364,921

Column/Row	Note
(2)	Exhibit 2, Col (8)
(3), (6)	Provided by client
(4)	Col (2) - Col (3)
(5)	Exhibit 11, Col (7)
(7)	Col (5) - Col (6)
(8)	Col (4) + Col (7)
(9)	Exhibit 1, Page 2
(10)	Col (8) x Col (9)
(11)	Based on simulation analysis of future closed claims
(12)	Col (10) x Col (11)
(13)	Provided by client
(14)	Row (13) - Column totals

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Calculation of Discount Factor**

Accident Year	Indicated Reserve	Months	Unpaid Percentage	Payments made at:																		Acc Yr Discount	
				07/01/19	07/01/20	07/01/21	07/01/22	07/01/23	07/01/24	07/01/25	07/01/26	07/01/27	07/01/28	07/01/29	07/01/30	07/01/31	07/01/32	07/01/33	07/01/34	07/01/35	07/01/36		07/01/37
2000	-	228	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.000
2001	-	216	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.000
2002	-	204	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.983
2003	6,572	192	0.1%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.983
2004	14,964	180	0.2%	60.6%	39.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.970
2005	30,523	168	0.3%	38.4%	37.3%	24.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.955
2006	44,397	156	0.5%	37.1%	24.1%	23.5%	15.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.945
2007	114,031	144	0.7%	36.3%	23.6%	15.4%	15.0%	9.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.938
2008	181,824	132	1.2%	35.7%	23.3%	15.2%	9.9%	9.6%	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.934
2009	235,717	120	1.8%	35.4%	23.1%	15.1%	9.8%	6.4%	6.2%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.931
2010	457,372	108	2.8%	35.0%	23.0%	15.0%	9.8%	6.4%	4.2%	4.0%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.929
2011	702,462	96	3.9%	29.7%	24.7%	16.2%	10.6%	6.9%	4.5%	2.9%	2.8%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.923
2012	1,041,105	84	8.1%	51.2%	14.5%	12.0%	7.9%	5.2%	3.4%	2.2%	1.4%	1.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.938
2013	3,211,668	72	19.0%	57.5%	21.8%	6.2%	5.1%	3.4%	2.2%	1.4%	0.9%	0.6%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.950
2014	7,520,391	60	50.3%	62.2%	21.8%	8.2%	2.3%	1.9%	1.3%	0.8%	0.5%	0.4%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.959
2015	11,276,782	48	71.1%	29.3%	43.9%	15.4%	5.8%	1.6%	1.4%	0.9%	0.6%	0.4%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.943
2016	20,611,945	36	85.7%	17.1%	24.3%	36.4%	12.8%	4.8%	1.4%	1.1%	0.7%	0.5%	0.3%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.923
2017	40,273,026	24	96.2%	10.9%	15.2%	21.6%	32.5%	11.4%	4.3%	1.2%	1.0%	0.7%	0.4%	0.3%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.902
2018	45,815,090	12	99.3%	3.2%	10.5%	14.7%	21.0%	31.4%	11.0%	4.2%	1.2%	1.0%	0.6%	0.4%	0.3%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.875
<b>Total</b>	<b>131,537,868</b>			<b>20,317,720</b>	<b>23,839,791</b>	<b>25,939,878</b>	<b>26,573,688</b>	<b>20,592,662</b>	<b>7,486,968</b>	<b>2,911,808</b>	<b>1,283,127</b>	<b>931,768</b>	<b>607,153</b>	<b>395,668</b>	<b>255,740</b>	<b>168,363</b>	<b>117,615</b>	<b>82,268</b>	<b>33,650</b>	<b>0</b>	<b>0</b>	<b>0</b>	
			Interest Rate																				
(1)	Annual Discount Factors		3.5%	0.983	0.950	0.918	0.887	0.857	0.828	0.800	0.773	0.746	0.721	0.697	0.673	0.650	0.628	0.607	0.587	0.567	0.548	0.529	
			4.5%	0.978	0.936	0.896	0.857	0.820	0.785	0.751	0.719	0.688	0.658	0.630	0.603	0.577	0.552	0.528	0.505	0.484	0.463	0.443	
			5.5%	0.974	0.923	0.875	0.829	0.786	0.745	0.706	0.669	0.634	0.601	0.570	0.540	0.512	0.485	0.460	0.436	0.413	0.392	0.371	
(2)	Discounted Values		3.5%	19,971,229	22,640,808	23,802,198	23,559,204	17,639,283	6,196,323	2,328,362	991,328	695,529	437,890	275,713	172,180	109,520	73,921	49,957	19,743	0	0	0	
			4.5%	19,875,444	22,316,599	23,236,848	22,779,533	16,892,316	5,877,144	2,187,293	922,354	640,943	399,662	249,235	154,156	97,117	64,922	43,456	17,009	0	0	0	
			5.5%	19,781,023	22,000,054	22,690,120	22,032,726	16,183,648	5,577,216	2,055,994	858,769	591,101	365,090	225,517	138,164	86,217	57,089	37,850	14,675	0	0	0	
(3)	Discounted Totals		3.5%	118,963,186		(4)	Overall	3.5%	0.904														
			4.5%	115,754,030			Discount	4.5%	0.880														
			5.5%	112,695,253			Factors	5.5%	0.857														

**Row Note**  
(1)  $1 / (1 + \text{Discount Factor})^n$  (Payments made at date - 12/31/18) Assumes payments are made uniformly throughout the policy period, starting six months subsequent to the loss evaluation date.  
(2) Annual Discount Factor x Payments made at date  
(3) Sum across all years  
(4) (3) / Total Reserves

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Compare**

Exhibit 1

Page 3

Accident Year	as of 12/31/18		as of 12/31/17		Difference			
	NMPCF Ultimate Excess	NMPCF Discounted Reserves	NMPCF Ultimate Excess	NMPCF Discounted Reserves	NMPCF Ultimate Excess		NMPCF Discounted Reserves	
	Losses	Reserves	Losses	Reserves	Losses		Reserves	
2000	6,560,000	0	6,562,409	2,368	-2,409	0%	-2,368	-100%
2001	9,261,652	0	9,269,230	7,349	-7,578	0%	-7,349	-100%
2002	9,309,500	0	9,324,379	14,272	-14,879	0%	-14,272	-100%
2003	6,602,760	6,460	6,619,260	21,933	-16,499	0%	-15,474	-71%
2004	5,497,464	14,513	5,512,224	27,885	-14,760	0%	-13,372	-48%
2005	9,807,180	29,139	8,843,727	48,841	963,453	11%	-19,702	-40%
2006	8,185,026	41,948	6,566,583	63,291	1,618,444	25%	-21,343	-34%
2007	19,120,000	106,994	17,530,000	153,848	1,590,000	9%	-46,853	-30%
2008	19,580,000	169,798	17,690,000	242,613	1,890,000	11%	-72,815	-30%
2009	12,428,421	219,405	10,229,829	310,615	2,198,592	21%	-91,210	-29%
2010	19,002,277	424,726	17,665,524	709,209	1,336,754	8%	-284,482	-40%
2011	21,716,190	648,120	20,948,280	1,451,884	767,910	4%	-803,763	-55%
2012	12,670,513	976,850	8,914,500	1,676,988	3,756,013	42%	-700,138	-42%
2013	9,618,816	3,052,627	10,107,387	5,294,947	-488,571	-5%	-2,242,321	-42%
2014	15,093,652	7,208,299	15,405,894	9,871,492	-312,243	-2%	-2,663,193	-27%
2015	13,254,649	10,631,150	12,855,815	10,860,637	398,834	3%	-229,487	-2%
2016	23,236,945	19,028,487	24,830,088	21,819,050	-1,593,143	-6%	-2,790,563	-13%
2017	40,948,026	36,320,907	43,983,204	38,591,812	-3,035,178	-7%	-2,270,905	-6%
Subtotal	261,893,071	78,879,423	252,858,332	91,169,033	9,034,739	4%	-12,289,611	-13%
2018	45,815,090	40,083,764						
Total	307,708,161	118,963,186						

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Selected Ultimate Losses**

Exhibit 2

Accident Year	Practitioner Surcharges	Paid Losses	Indicated Ultimate Losses				Selected Ultimate Losses	Loss Ratio
			B-F Method	Expected Loss Ratio Method	Paid Development Method	Frequency/Severity Method		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2000	8,238,309	6,560,000	6,560,000	9,474,056	6,560,000	4,546,643	6,560,000	79.6%
2001	9,181,946	9,261,652	9,261,652	10,559,238	9,261,652	8,040,380	9,261,652	100.9%
2002	9,421,675	9,309,500	9,309,500	10,834,926	9,309,500	6,859,449	9,309,500	98.8%
2003	9,924,688	6,596,189	6,604,516	11,413,391	6,601,005	7,202,421	6,602,760	66.5%
2004	9,283,270	5,482,500	5,502,261	10,675,761	5,492,667	6,689,941	5,497,464	59.2%
2005	9,151,210	9,776,657	9,808,258	10,523,892	9,806,102	9,773,132	9,807,180	107.2%
2006	9,067,465	8,140,629	8,190,390	10,427,585	8,179,663	7,375,660	8,185,026	90.3%
2007	8,810,595	19,005,969	19,081,838	10,132,184	19,149,358	19,866,181	19,120,000	217.0%
2008	9,696,249	19,398,176	19,528,100	11,150,686	19,626,862	26,162,750	19,580,000	201.9%
2009	11,113,554	11,817,704	12,048,053	12,780,587	12,034,608	13,364,216	12,040,000	108.3%
2010	11,293,496	17,709,906	18,070,257	12,987,521	18,215,307	17,150,743	18,140,000	160.6%
2011	10,798,897	18,972,165	19,461,982	12,418,731	19,751,187	13,506,210	19,610,000	181.6%
2012	10,498,870	10,674,408	11,650,029	12,073,701	11,612,785	9,454,347	11,630,000	110.8%
2013	10,330,574	5,781,250	8,040,108	11,880,160	7,138,553	9,475,834	8,760,000	84.8%
2014	10,838,627	7,484,434	13,747,977	12,464,421	15,044,503	14,213,752	14,340,000	132.3%
2015	10,536,745	1,240,000	9,852,507	12,117,257	4,287,153	11,442,070	11,140,000	105.7%
2016	11,706,286	1,700,000	13,239,382	13,462,229	11,902,036	15,148,306	13,950,000	119.2%
2017	19,718,779	500,000	22,312,873	22,676,596	13,127,245	24,681,291	22,676,596	115.0%
2018	21,435,425	0	24,487,449	24,650,739	0	25,915,356	24,650,739	115.0%
Total	211,046,660	169,411,138	246,757,134	242,703,660	207,100,187	250,868,685	250,860,917	118.9%
2009-18	128,271,253	75,879,867	152,910,619	147,511,941	113,113,378	154,352,126	156,937,334	122.3%

Column	Note
(2), (3)	Based on data provided by client
(4)	Exhibit 3, Page 1, Col (6)
(5)	Exhibit 3, Page 2, Col (6)
(6)	Exhibit 4, Col (5)
(7)	Exhibit 5, Page 1, Col (4)
(8)	Judgmental selection based on Cols (4) - (7)
(9)	Col (8) / Col (2)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**B-F Method**

Exhibit 3

Page 1

Accident Year	Practitioner Surcharges	Expected Loss Ratio	Paid Loss	Percentage Of Ultimate Paid	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)
2000	8,238,309	115.0%	6,560,000	100.0%	6,560,000
2001	9,181,946	115.0%	9,261,652	100.0%	9,261,652
2002	9,421,675	115.0%	9,309,500	100.0%	9,309,500
2003	9,924,688	115.0%	6,596,189	99.9%	6,604,516
2004	9,283,270	115.0%	5,482,500	99.8%	5,502,261
2005	9,151,210	115.0%	9,776,657	99.7%	9,808,258
2006	9,067,465	115.0%	8,140,629	99.5%	8,190,390
2007	8,810,595	115.0%	19,005,969	99.3%	19,081,838
2008	9,696,249	115.0%	19,398,176	98.8%	19,528,100
2009	11,113,554	115.0%	11,817,704	98.2%	12,048,053
2010	11,293,496	115.0%	17,709,906	97.2%	18,070,257
2011	10,798,897	115.0%	18,972,165	96.1%	19,461,982
2012	10,498,870	115.0%	10,674,408	91.9%	11,650,029
2013	10,330,574	115.0%	5,781,250	81.0%	8,040,108
2014	10,838,627	115.0%	7,484,434	49.7%	13,747,977
2015	10,536,745	115.0%	1,240,000	28.9%	9,852,507
2016	11,706,286	115.0%	1,700,000	14.3%	13,239,382
2017	19,718,779	115.0%	500,000	3.8%	22,312,873
2018	21,435,425	115.0%	0	0.7%	24,487,449
Total	211,046,660		169,411,138		246,757,134
2010-18	117,157,699		64,062,163		140,862,565

Column	Note
(2), (4)	Based on data provided by client
(3)	Exhibit 3, Page 2, Col (5)
(5)	Exhibit 15
(6)	Col (2) x Col (3) x [1 - Col (5)] + Col (4)



**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Expected Loss Ratio Method**

Exhibit 3

Page 2

Accident Year	Practitioner Surcharges	Indicated Ultimate Losses From Paid Loss Dev Method	Indicated Loss Ratio	Expected Loss Ratio	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)
2000	8,238,309	6,560,000	79.6%		9,474,056
2001	9,181,946	9,261,652	100.9%		10,559,238
2002	9,421,675	9,309,500	98.8%		10,834,926
2003	9,924,688	6,601,005	66.5%		11,413,391
2004	9,283,270	5,492,667	59.2%		10,675,761
2005	9,151,210	9,806,102	107.2%		10,523,892
2006	9,067,465	8,179,663	90.2%		10,427,585
2007	8,810,595	19,149,358	217.3%		10,132,184
2008	9,696,249	19,626,862	202.4%		11,150,686
2009	11,113,554	12,034,608	108.3%		12,780,587
2010	11,293,496	18,215,307	161.3%		12,987,521
2011	10,798,897	19,751,187	182.9%		12,418,731
2012	10,498,870	11,612,785	110.6%		12,073,701
2013	10,330,574	7,138,553	69.1%		11,880,160
2014	10,838,627	15,044,503	138.8%		12,464,421
2015	10,536,745	4,287,153	40.7%		12,117,257
2016	11,706,286	11,902,036	101.7%		13,462,229
2017	19,718,779	13,127,245	66.6%		22,676,596
2018	21,435,425	0	0.0%		24,650,739
Total	211,046,660	207,100,187	98.1%	115.0%	242,703,660
2000-13	136,810,798	162,739,250	119.0%		
2009-15	75,410,763	88,084,097	116.8%		

Column	Note
(2)	Based on data provided by client
(3)	Exhibit 4, Col (5)
(4)	Col (3) / Col (2)
(5)	Judgment
(6)	Col (2) x Col (5)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Paid Loss Development Method**

Exhibit 4

Accident Year	Paid Losses	Month of Development	Cumulative Development Factor	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)
2000	6,560,000	228	1.000	6,560,000
2001	9,261,652	216	1.000	9,261,652
2002	9,309,500	204	1.000	9,309,500
2003	6,596,189	192	1.001	6,601,005
2004	5,482,500	180	1.002	5,492,667
2005	9,776,657	168	1.003	9,806,102
2006	8,140,629	156	1.005	8,179,663
2007	19,005,969	144	1.008	19,149,358
2008	19,398,176	132	1.012	19,626,862
2009	11,817,704	120	1.018	12,034,608
2010	17,709,906	108	1.029	18,215,307
2011	18,972,165	96	1.041	19,751,187
2012	10,674,408	84	1.088	11,612,785
2013	5,781,250	72	1.235	7,138,553
2014	7,484,434	60	2.010	15,044,503
2015	1,240,000	48	3.457	4,287,153
2016	1,700,000	36	7.001	11,902,036
2017	500,000	24	26.254	13,127,245
2018	0	12	150.963	0
Total	169,411,138			207,100,187

Column	Note
(2)	Based on data provided by client
(4)	Exhibit 15
(5)	Col (2) x Col (4)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Frequency and Severity Method**

Exhibit 5

Page 1

Accident Year	Selected Ultimate Claims Closed with Payment	Selected Ultimate Severity	Indicated Ultimate Losses
(1)	(2)	(3)	(4)
2000	19	239,297	4,546,643
2001	32	251,262	8,040,380
2002	26	263,825	6,859,449
2003	26	277,016	7,202,421
2004	23	290,867	6,689,941
2005	32	305,410	9,773,132
2006	23	320,681	7,375,660
2007	59	336,715	19,866,181
2008	74	353,551	26,162,750
2009	36	371,228	13,364,216
2010	44	389,790	17,150,743
2011	33	409,279	13,506,210
2012	22	429,743	9,454,347
2013	21	451,230	9,475,834
2014	30	473,792	14,213,752
2015	23	497,481	11,442,070
2016	29	522,355	15,148,306
2017	45	548,473	24,681,291
2018	45	575,897	25,915,356
Total	642		250,868,685

Column	Note
(2)	Exhibit 5, Page 3, Col (6)
(3)	Exhibit 5, Page 2, Col (10)
(4)	Col (2) x Col (3)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Severity Trend for Paid Losses Excess of Retention**

Exhibit 5

Page 2

Accident Year	Paid Loss	Claims Closed With Payment	Paid Severity	Indicated Trend	R <sup>2</sup>	Selected Trend	Trended Severity to 2018	Selected Severity	Detrended Severity
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2000	6,560,000	19	345,263				830,917		239,297
2001	9,261,652	32	289,427				663,371		251,262
2002	9,309,500	26	358,058				781,595		263,825
2003	6,596,189	26	253,700				527,423		277,016
2004	5,482,500	23	238,370				471,955		290,867
2005	9,776,657	32	305,521				576,105		305,410
2006	8,140,629	23	353,940				635,626		320,681
2007	19,005,969	59	322,135				550,960		336,715
2008	19,398,176	74	262,138				426,994		353,551
2009	11,817,704	36	328,270				509,254		371,228
2010	17,709,906	43	411,858				608,502		389,790
2011	18,972,165	32	592,880				834,242		409,279
2012	10,674,408	20	533,720				715,236		429,743
2013	5,781,250	14	412,946				527,036		451,230
2014	7,484,434	17	440,261				535,140		473,792
2015	1,240,000	4	310,000				358,864		497,481
2016	1,700,000	5	340,000				374,850		522,355
2017	500,000	1	500,000				525,000		548,473
2018	0	0	0				0		575,897
Total	169,411,138	486	348,583				586,160		
2006-15	120,224,641	322	373,368	3.1%	0.135	5.0%	565,634	575,897	

Column	Note
(2), (3)	Based on data provided by client
(4)	Col (2) / Col (3)
(8)	Col (4) trended forward with selected trend in Col (7)
(10)	Selected severity in Col (9) detrended with selected trend in Col (7)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Closed With Payment Projection Summary**

Exhibit 5  
Page 3

Accident Year	Claims Closed With Payment	Indicated Ultimate Claims Closed With Payment			Selected Ultimate Closed With Payment
		B-F Method	Frequency Method	Claim Development Method	
(1)	(2)	(3)	(4)	(5)	(6)
2000	19	19	27	19	19
2001	32	32	29	32	32
2002	26	26	28	26	26
2003	26	26	30	26	26
2004	23	23	28	23	23
2005	32	32	27	32	32
2006	23	23	27	23	23
2007	59	59	26	59	59
2008	74	74	27	74	74
2009	36	36	30	36	36
2010	43	44	29	44	44
2011	32	33	27	33	33
2012	20	22	26	22	22
2013	14	19	26	17	21
2014	17	29	27	30	30
2015	4	21	26	12	23
2016	5	29	29	30	29
2017	1	45	46	23	45
2018	0	45	46	0	45
Total	486	637	561	561	642

Column	Note
(2)	Based on data provided by client
(3)	Exhibit 6, Col (5)
(4)	Exhibit 7, Col (7)
(5)	Exhibit 8, Col (5)
(6)	Judgmental selection based on Cols (3) - (5)

**New Mexico Patients' Compensation Fund**

Exhibit 6

**Reserves as of 12/31/2018**

**Physicians & Surgeons**

**Including Batch Claims**

**Paid Claim Projection Based on B-F Method**

Accident Year	Claims Closed With Payment	Frequency Mtd. Indicated Ultimate Claims Closed With Payment	Percent of Ultimate Closed With Payment	Indicated Ultimate Closed With Payment
(1)	(2)	(3)	(4)	(5)
2000	19	27	100.0%	19
2001	32	29	100.0%	32
2002	26	28	100.0%	26
2003	26	30	100.0%	26
2004	23	28	100.0%	23
2005	32	27	100.0%	32
2006	23	27	100.0%	23
2007	59	26	100.0%	59
2008	74	27	99.7%	74
2009	36	30	99.2%	36
2010	43	29	98.2%	44
2011	32	27	96.3%	33
2012	20	26	91.2%	22
2013	14	26	81.4%	19
2014	17	27	56.1%	29
2015	4	26	34.6%	21
2016	5	29	16.5%	29
2017	1	46	4.4%	45
2018	0	46	1.1%	45
Total	486	561		637

Column	Note
(2)	Based on data provided by client
(4)	Exhibit 16
(3)	Exhibit 7, Col (7)
(5)	Col (2) + Col (3) x [ 1 - Col (4) ]

**New Mexico Patients' Compensation Fund**

Exhibit 7

**Reserves as of 12/31/2018**

**Physicians & Surgeons**

**Including Batch Claims**

**Paid Claim Projection Based on Frequency Method**

Accident Year	Claims Closed With Payment	Development Mtd. Indicated Ultimate Claims Closed With Payment	Practitioner Surcharges at Current Rate Level	Indicated Ultimate Claim Frequency Per \$1M in Surcharges	Selected Frequency	Indicated Ultimate Claims Closed With Payment
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2000	19	19	12,878,190	1.48		27
2001	32	32	13,452,186	2.38		29
2002	26	26	13,347,977	1.95		28
2003	26	26	14,060,611	1.85		30
2004	23	23	13,151,894	1.75		28
2005	32	32	12,964,801	2.47		27
2006	23	23	12,846,157	1.79		27
2007	59	59	12,335,754	4.78		26
2008	74	74	12,682,723	5.83		27
2009	36	36	14,303,427	2.52		30
2010	43	44	13,606,370	3.23		29
2011	32	33	12,759,642	2.59		27
2012	20	22	12,405,139	1.77		26
2013	14	17	12,206,286	1.39		26
2014	17	30	12,806,586	2.34		27
2015	4	12	12,449,891	0.96		26
2016	5	30	13,794,281	2.17		29
2017	1	23	21,867,098	1.05		46
2018	0	0	21,929,056	0.00		46
Total	486	561	265,848,068	2.11	2.12	561
2009-15	166	194	90,537,341	2.14		

Column	Note
(2)	Exhibit 8, Col (1)
(3)	Exhibit 8, Col (5)
(4)	Based on data provided by client
(5)	Col (3) / Col (4) x 1,000,000
(7)	Col (4) x Col (6) / 1,000,000

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Physicians & Surgeons**  
**Including Batch Claims**  
**Closed With Payment Claim Development Method**

Exhibit 8

Accident Year (1)	Claims Closed With Payment (2)	Month of Development (3)	Cumulative Development Factor (4)	Indicated Ultimate Claims Closed With Payment (5)
2000	19.0	228	1.000	19
2001	32.0	216	1.000	32
2002	26.0	204	1.000	26
2003	26.0	192	1.000	26
2004	23.0	180	1.000	23
2005	32.0	168	1.000	32
2006	23.0	156	1.000	23
2007	59.0	144	1.000	59
2008	74.0	132	1.003	74
2009	36.0	120	1.008	36
2010	43.0	108	1.018	44
2011	32.0	96	1.038	33
2012	20.0	84	1.097	22
2013	14.0	72	1.229	17
2014	17.0	60	1.782	30
2015	4.0	48	2.886	12
2016	5.0	36	6.061	30
2017	1.0	24	22.729	23
2018	0.0	12	90.914	0
Total	486.0			561

Column	Note
(2)	Based on data provided by client
(4)	Exhibit 16
(5)	Col (2) x Col (4)



**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Development of Physician Surcharge Estimates**

Exhibit 9

Class	NMPCF Indicated Surcharge Physicians and Surgeons		
	NMPCF Current Surcharge	Discounted Estimated Surcharges	
		9/1/19-20 Rate Level	
(1)	(2)	Expected Value (3)	Risk Loaded Value (4)
1	\$2,920	\$3,322	\$4,006
2	3,889	4,424	5,335
3	4,676	5,319	6,415
4A	5,843	6,647	8,016
4	7,008	7,972	9,614
5A	6,214	7,069	8,525
5	8,562	9,740	11,746
6	10,122	11,514	13,886
7A	11,678	13,284	16,021
7	15,569	17,710	21,359
8	18,494	21,038	25,371
9A	18,876	21,472	25,896
9	22,384	25,463	30,708
10	24,334	27,681	33,383
51	341	388	468
52	341	388	468
53	234	266	321
99	2,325	2,645	3,190
CRNA	774	880	1,062
PA-1	1,319	1,500	1,810
PA-2	1,760	2,002	2,414
PA-3	2,119	2,410	2,907
(9)	Class 1 Rate		
	\$2,920	\$3,322	\$4,006
(10)	Indicated Percent of Change		
		13.8%	37.2%

Column/Row Note  
(2) Provided by NMPCF  
(3)-(4) Based on indicated surcharge changes in Exhibit 10

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Indicated Rate Change Effective 9/1/19 through 9/1/20**  
**Using Expected Value Losses**  
**Physicians & Surgeons**

Exhibit 10

Page 1

Accident Year (1)	Practitioner Surcharges @ 12/31/18 Level (2)	Projected Ultimate Losses (3)	Trended Ultimate Loss (4)	Trended Ultimate Loss Ratio (5)
2009	14,303,427	12,040,000	19,611,891	137.1%
2010	13,606,370	18,140,000	28,141,094	206.8%
2011	12,759,642	19,610,000	28,972,901	227.1%
2012	12,405,139	11,630,000	16,364,578	131.9%
2013	12,206,286	8,760,000	11,739,238	96.2%
2014	12,806,586	14,340,000	18,301,878	142.9%
2015	12,449,891	11,140,000	13,540,740	108.8%
2016	13,794,281	13,950,000	16,148,869	117.1%
2017	21,867,098	22,676,596	25,000,947	114.3%
2018	21,929,056	24,650,739	25,883,276	118.0%
All Years	148,127,775	156,937,334	203,705,411	137.5%
2009 - 2016	104,331,622	109,610,000	152,821,188	146.5%
2012 - 2016	63,662,184	59,820,000	76,095,302	119.5%
2014 - 2016	39,050,759	39,430,000	47,991,486	122.9%
(6) Projected 2019-2020 Undiscounted Loss Ratio (Selected Based on Col (4))				119.5%
(7) Projected 2019-2020 Assessments at Current Fee Level				21,929,056
(8) Projected 2019-2020 Undiscounted Losses				26,211,763
(9) Projected Loss Adjustment Expenses as a Percentage of Losses Paid				2.7%
(10) Discount Factor at 3.5% Yield				0.846
(11) Projected Office Expenses as a Percentage of Surcharges Collected				2.7%
(12) Projected Reinsurance Expense as a Percentage of Surcharges Collected				6.0%
(13) Projected 2019-2020 Income Requirements				24,945,200
(14) Indicated Assessment Level Change on September 1, 2019				13.8%

Column / Row	Note
(2), (9), (10), (11), (12)	Based on data provided by client
(3)	Exhibit 2, Col (8)
(4)	Col (3) x [1 + Selected trend rate of 5%] ^ (2019 - Col (1))
(5)	Col (4) / Col (2)
(7)	Most current Assessment
(8)	Row (6) x Row (7)
(13)	[Row (8) x [1 + Row (9)] x Row (10)] / [1 - Row (11) - Row (12)]
(14)	Row (13) / Row (7) - 1

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Indicated Rate Change Effective 9/1/19 through 9/1/20**  
**Using Expected Value Losses with Risk Load**  
**Physicians & Surgeons**

Exhibit 10

Page 2

Accident Year	Practitioner Surcharges @ 12/31/18 Level	Projected Ultimate Losses	Trended Ultimate Loss	Trended Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)
2009	14,303,427	12,040,000	19,611,891	137.1%
2010	13,606,370	18,140,000	28,141,094	206.8%
2011	12,759,642	19,610,000	28,972,901	227.1%
2012	12,405,139	11,630,000	16,364,578	131.9%
2013	12,206,286	8,760,000	11,739,238	96.2%
2014	12,806,586	14,340,000	18,301,878	142.9%
2015	12,449,891	11,140,000	13,540,740	108.8%
2016	13,794,281	13,950,000	16,148,869	117.1%
2017	21,867,098	22,676,596	25,000,947	114.3%
2018	21,929,056	24,650,739	25,883,276	118.0%
All Years	148,127,775	156,937,334	203,705,411	137.5%
2009 - 2016	104,331,622	109,610,000	152,821,188	146.5%
2012 - 2016	63,662,184	59,820,000	76,095,302	119.5%
2014 - 2016	39,050,759	39,430,000	47,991,486	122.9%
(6) Projected 2019-2020 Undiscounted Loss Ratio (Selected Based on Col (4))				119.5%
(7) Projected 2019-2020 Assessments at Current Fee Level				21,929,056
(8) Projected 2019-2020 Undiscounted Losses				26,211,763
(9) Projected Loss Adjustment Expenses as a Percentage of Losses Paid				2.7%
(10) Discount Factor at 3.5% Yield				0.846
(11) Risk Margin Factor at 90% Confidence Level				1.206
(12) Projected Office Expenses as a Percentage of Surcharges Collected				2.7%
(13) Projected Reinsurance Expense as a Percentage of Surcharges Collected				6.0%
(14) Projected 2019-2021 Income Requirements @ 90%				30,083,911
(15) Indicated Assessment Level Change on September 1, 2019				37.2%

Column / Row	Note
(2), (9), (10), (11), (12), (13)	Based on data provided by client
(3)	Exhibit 2, Col (8)
(4)	Col (3) x [1 + Selected trend rate of 5%] ^ (2019 - Col (1))
(5)	Col (4) / Col (2)
(7)	Most current Assessment
(8)	Row (6) x Row (7)
(14)	[Row (8) x [1 + Row (9)] x Row (10) x Row (11)] / [1 - Row (12) - Row (13)]
(15)	Row (14) / Row (7) - 1

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Hospitals**  
**Selected Ultimate Losses**

Exhibit 11

Accident Year	Hospital Surcharges	Paid Losses	Indicated Ultimate Losses			Selected Ultimate Losses	Loss Ratio
			B-F Method	Expected Loss Ratio Method	Paid Development Method		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2009	1,130,000	375,000	394,959	1,107,400	381,883	388,421	34.4%
2010	1,130,000	835,000	865,726	1,107,400	858,829	862,277	76.3%
2011	1,175,200	2,041,563	2,086,987	1,151,696	2,125,392	2,106,190	179.2%
2012	1,099,542	955,000	1,042,072	1,077,551	1,038,953	1,040,513	94.6%
2013	1,250,000	625,898	858,816	1,225,000	772,844	858,816	68.7%
2014	1,350,000	88,826	753,652	1,323,000	178,550	753,652	55.8%
2015	1,350,000	737,868	1,678,208	1,323,000	2,551,090	2,114,649	156.6%
2016	9,476,474	925,000	8,885,465	9,286,945	6,476,108	9,286,945	98.0%
2017	18,644,316	175,000	17,750,494	18,271,430	4,594,536	18,271,430	98.0%
2018	21,596,277	0	21,024,156	21,164,351	0	21,164,351	98.0%
<b>Total</b>	<b>58,201,809</b>	<b>6,759,154</b>	<b>55,340,536</b>	<b>57,037,773</b>	<b>18,978,185</b>	<b>56,847,243</b>	<b>97.7%</b>

Column	Note
(2), (3)	Based on data provided by client
(4)	Exhibit 12, Page 1, Col (6)
(5)	Exhibit 12, Page 2, Col (6)
(6)	Exhibit 13, Col (5)
(7)	Judgmental selection based on Cols (4) - (6)
(8)	Col (8) / Col (2)

**New Mexico Patients' Compensation Fund**

Exhibit 12

**Reserves as of 12/31/2018**

Page 1

**Hospitals**

**B-F Method**

Accident Year	Hospital Surcharges	Expected Loss Ratio	Paid Loss	Percentage Of Ultimate Paid	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)
2009	1,130,000	98.0%	375,000	98.2%	394,959
2010	1,130,000	98.0%	835,000	97.2%	865,726
2011	1,175,200	98.0%	2,041,563	96.1%	2,086,987
2012	1,099,542	98.0%	955,000	91.9%	1,042,072
2013	1,250,000	98.0%	625,898	81.0%	858,816
2014	1,350,000	98.0%	88,826	49.7%	753,652
2015	1,350,000	98.0%	737,868	28.9%	1,678,208
2016	9,476,474	98.0%	925,000	14.3%	8,885,465
2017	18,644,316	98.0%	175,000	3.8%	17,750,494
2018	21,596,277	98.0%	0	0.7%	21,024,156
Total	58,201,809		6,759,154		55,340,536

Column	Note
(2), (4)	Based on data provided by client
(3)	Exhibit 12, Page 2, Col (5)
(5)	Exhibit 15
(6)	Col (2) x Col (3) x [1 - Col (5)] + Col (4)

**New Mexico Patients' Compensation Fund  
Reserves as of 12/31/2018**

Exhibit 12

Page 2

**Hospitals**

**Expected Loss Ratio Method**

Accident Year	Hospital Surcharges	Indicated Ultimate Losses From Paid Loss Dev Method	Indicated Loss Ratio	Expected Loss Ratio	Indicated Ultimate Losses
(1)	(2)	(3)	(4)	(5)	(6)
2009	1,130,000	381,883	33.8%		1,107,400
2010	1,130,000	858,829	76.0%		1,107,400
2011	1,175,200	2,125,392	180.9%		1,151,696
2012	1,099,542	1,038,953	94.5%		1,077,551
2013	1,250,000	772,844	61.8%		1,225,000
2014	1,350,000	178,550	13.2%		1,323,000
2015	1,350,000	2,551,090	189.0%		1,323,000
2016	9,476,474	6,476,108	68.3%		9,286,945
2017	18,644,316	4,594,536	24.6%		18,271,430
2018	21,596,277	0	0.0%		21,164,351
Total	58,201,809	18,978,185	32.6%	98.0%	57,037,773
2009-15	8,484,742	7,907,541	93.2%		
2009-17	36,605,532	18,978,185	51.8%		

Column	Note
(2)	Based on data provided by client
(3)	Exhibit 13, Col (5)
(4)	Col (3) / Col (2)
(5)	Judgment
(6)	Col (2) x Col (5)

**New Mexico Patients' Compensation Fund**

Exhibit 13

**Reserves as of 12/31/2018**

**Hospitals**

**Paid Loss Development Method**

<u>Accident Year</u>	<u>Paid Losses</u>	<u>Month of Development</u>	<u>Cumulative Development Factor</u>	<u>Indicated Ultimate Losses</u>
(1)	(2)	(3)	(4)	(5)
2009	375,000	120	1.018	381,883
2010	835,000	108	1.029	858,829
2011	2,041,563	96	1.041	2,125,392
2012	955,000	84	1.088	1,038,953
2013	625,898	72	1.235	772,844
2014	88,826	60	2.010	178,550
2015	737,868	48	3.457	2,551,090
2016	925,000	36	7.001	6,476,108
2017	175,000	24	26.254	4,594,536
2018	0	12	150.963	0
<b>Total</b>	<b>6,759,154</b>			<b>18,978,185</b>

<u>Column</u>	<u>Note</u>
(2)	Based on data provided by client
(4)	Exhibit 15
(5)	Col (2) x Col (4)

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Indicated Rate Change Effective 9/1/19 through 9/1/20**  
**Using Expected Value Losses**  
**Hospitals**

Exhibit 14

Page 1

Accident Year	Hospital Surcharges @ 12/31/18 Level	Projected Ultimate Losses	Trended Ultimate Loss	Projected Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(5)
2009	1,454,339	388,421	632,697	43.5%
2010	1,361,421	862,277	1,337,675	98.3%
2011	1,388,580	2,106,190	3,111,801	224.1%
2012	1,299,185	1,040,513	1,464,106	112.7%
2013	1,476,961	858,816	1,150,896	77.9%
2014	1,595,118	753,652	961,872	60.3%
2015	1,595,118	2,114,649	2,570,369	161.1%
2016	11,166,748	9,286,945	10,750,799	96.3%
2017	20,675,574	18,271,430	20,144,251	97.4%
2018	22,093,612	21,164,351	22,222,569	100.6%
All Years	64,106,656	56,847,243	64,347,035	100.4%
2009 - 2016	21,337,470	17,411,462	21,980,215	103.0%
2012 - 2016	17,133,131	14,054,574	16,898,042	98.6%
2014 - 2016	14,356,985	12,155,245	14,283,040	99.5%
(6) Projected 2019-2020 Undiscounted Loss Ratio (Selected Based on Col (4))				100.4%
(7) Projected 2019-2020 Assessments at Current Fee Level				22,093,612
(8) Projected 2019-2020 Undiscounted Losses				22,176,471
(9) Projected Loss Adjustment Expenses as a Percentage of Losses Paid				2.7%
(10) Discount Factor at 3.5% Yield				0.846
(11) Projected Office Expenses as a Percentage of Surcharges Collected				2.7%
(12) Projected Reinsurance Expense as a Percentage of Surcharges Collected				6.0%
(13) Projected 2019-2020 Income Requirements				21,104,895
(14) Indicated Assessment Level Change on September 1, 2019				-4.5%

Column / Row	Note
(2), (9), (10), (11), (12)	Based on data provided by client
(3)	Exhibit 2, Col (8)
(4)	Col (3) x [1 + Selected trend rate of 5%] ^ (2019 - Col (1))
(5)	Col (4) / Col (2)
(7)	Most current Assessment
(8)	Row (6) x Row (7)
(13)	[Row (8) x [1 + Row (9)] x Row (10)] / [1 - Row (11) - Row (12)]
(14)	Row (13) / Row (7) - 1



**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Indicated Rate Change Effective 9/1/19 through 9/1/20**  
**Using Expected Value Losses with Risk Load**  
**Hospitals**

Exhibit 14

Page 2

Accident Year	Participant Surcharges @ 12/31/18 Level	Projected Ultimate Losses	Trended Ultimate Loss	Projected Ultimate Loss Ratio
(1)	(2)	(3)	(4)	(4)
2009	1,454,339	388,421	632,697	43.5%
2010	1,361,421	862,277	1,337,675	98.3%
2011	1,388,580	2,106,190	3,111,801	224.1%
2012	1,299,185	1,040,513	1,464,106	112.7%
2013	1,476,961	858,816	1,150,896	77.9%
2014	1,595,118	753,652	961,872	60.3%
2015	1,595,118	2,114,649	2,570,369	161.1%
2016	11,166,748	9,286,945	10,750,799	96.3%
2017	20,675,574	18,271,430	20,144,251	97.4%
2018	22,093,612	21,164,351	22,222,569	100.6%
All Years	64,106,656	56,847,243	64,347,035	100.4%
2009 - 2016	21,337,470	17,411,462	21,980,215	103.0%
2012 - 2016	17,133,131	14,054,574	16,898,042	98.6%
2014 - 2016	14,356,985	12,155,245	14,283,040	99.5%
(6) Projected 2019-2020 Undiscounted Loss Ratio (Selected Based on Col (4))				100.4%
(7) Projected 2019-2020 Assessments at Current Fee Level				22,093,612
(8) Projected 2019-2020 Undiscounted Losses				22,176,471
(9) Projected Loss Adjustment Expenses as a Percentage of Losses Paid				2.7%
(10) Discount Factor at 3.5% Yield				0.846
(11) Risk Margin Factor at 90% Confidence Level				1.206
(12) Projected Office Expenses as a Percentage of Surcharges Collected				2.7%
(13) Projected Reinsurance Expense as a Percentage of Surcharges Collected				6.0%
(14) Projected 2019-2021 Income Requirements @ 90%				25,452,503
(15) Indicated Assessment Level Change on September 1, 2019				15.2%

Column / Row	Note
(2), (9), (10), (11), (12), (13)	Based on data provided by client
(3)	Exhibit 2, Col (8)
(4)	Col (3) x [1 + Selected trend rate of 5%] ^ (2019 - Col (1))
(5)	Col (4) / Col (2)
(7)	Most current Assessment
(8)	Row (6) x Row (7)
(14)	[Row (8) x [1 + Row (9)] x Row (10) x Row (11)] / [1 - Row (12) - Row (13)]
(15)	Row (14) / Row (7) - 1



**New Mexico Patients' Compensation Fund  
Reserves as of 12/31/2018**

Exhibit 16

**Claims Closed With Payment - Hospital & Practitioner Combined (Excluding Batch Claims)**

Accident Year	Months of Development																				
	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252
1995	0	0	0	0	0	3	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6
1996	0	0	0	0	4	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
1997	0	0	0	6	10	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
1998	0	0	2	6	8	10	12	12	12	12	12	13	13	13	13	13	13	13	13	13	13
1999	0	1	3	6	11	15	18	19	19	19	20	20	20	20	20	20	20	20	20	20	20
2000	0	3	7	10	16	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
2001	1	5	10	14	22	28	31	32	32	32	32	32	32	32	32	32	32	32	32	32	32
2002	1	2	3	10	15	21	25	26	26	26	26	26	26	26	26	26	26	26	26	26	26
2003	0	1	7	12	18	20	22	25	26	26	26	26	26	26	26	26	26	26	26	26	26
2004	0	0	6	8	14	20	21	23	23	23	23	23	23	23	23	23	23	23	23	23	23
2005	1	2	4	7	16	23	26	27	29	29	29	29	29	29	29	29	29	29	29	29	29
2006	0	0	2	7	11	13	15	16	17	17	17	17	17	17	17	17	17	17	17	17	17
2007	0	0	2	13	20	25	27	29	29	29	29	29	29	29	29	29	29	29	29	29	29
2008	0	0	6	15	21	27	33	34	34	34	34	34	34	34	34	34	34	34	34	34	34
2009	0	2	7	9	13	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21
2010	0	2	9	16	24	38	40	41	41	41	41	41	41	41	41	41	41	41	41	41	41
2011	0	2	5	11	21	29	34	38	38	38	38	38	38	38	38	38	38	38	38	38	38
2012	0	1	3	8	12	19	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
2013	0	1	2	3	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
2014	0	1	6	12	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
2015	0	0	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
2016	0	2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2017	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Claims Closed With Payment - Hospital & Practitioner Combined (Excluding Batch Claims)**

Accident Year	Development Factors																				
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-132	132-144	144-156	156-168	168-180	180-192	192-204	204-216	216-228	228-240	240-252	252-Ult
1995					2.250	1.333	1.250	1.000	1.000	1.000	1.200	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997				1.667	1.300	1.077	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998			3.000	1.333	1.250	1.200	1.000	1.000	1.000	1.000	1.083	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999		3.000	2.000	1.833	1.364	1.200	1.056	1.000	1.053	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000		2.333	1.429	1.600	1.188	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	5.000	2.000	1.400	1.571	1.273	1.107	1.032	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	2.000	1.500	3.333	1.500	1.400	1.190	1.040	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003		7.000	1.714	1.500	1.111	1.100	1.136	1.040	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004		1.333	1.750	1.429	1.050	1.095	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	2.000	2.000	1.750	2.286	1.438	1.130	1.038	1.074	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006			3.500	1.571	1.182	1.154	1.067	1.063	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007			6.500	1.538	1.250	1.080	1.074	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008			2.500	1.400	1.286	1.222	1.030	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009		3.500	1.286	1.444	1.538	1.000	1.050	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010		4.500	1.778	1.500	1.583	1.053	1.025	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011		2.500	2.200	1.909	1.381	1.172	1.118	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012		3.000	2.667	1.500	1.583	1.158	1.158	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013		2.000	1.500	3.333	1.500	1.500	1.500	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014		6.000	2.000	1.417	1.417	1.417	1.417	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015			2.500	2.500	2.500	2.500	2.500	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016		3.500	3.500	3.500	3.500	3.500	3.500	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2017																					
Avg	3.000	3.295	2.355	1.703	1.406	1.124	1.060	1.011	1.004	1.000	1.022	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
W Avg	9.000	3.720	2.070	1.636	1.380	1.114	1.054	1.011	1.003	1.000	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 yr W Avg		4.000	2.167	1.680	1.513	1.120	1.058	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7 yr W Avg		3.778	1.882	1.595	1.430	1.117	1.056	1.016	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 yr Avg x Hi/Lo		3.000	2.233	1.636	1.541	1.128	1.051	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
7 yr Avg x Hi/Lo		3.400	1.996	1.554	1.458	1.123	1.052	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	4.000	3.750	2.050	1.585	1.360	1.120	1.055	1.023	1.010	1.005	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	4.000	3.750	2.100	1.620	1.450	1.120	1.056	1.020	1.010	1.005	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
LDF to Ultimate	90.914	22.729	6.061	2.886	1.782	1.229	1.097	1.038	1.018	1.008	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
% of Ultimate	1.1%	4.4%	16.5%	34.6%	56.1%	81.4%	91.2%	96.3%	98.2%	99.2%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Expense Analysis**

Exhibit 17

Page 1

Loss Adjustment Expenses as a Percentage of Losses Paid

Calendar Year (1)	NM Med Soc/ Medical Panel Expenses (2)	Contracts and Consultants (3)	Paid Losses (4)
2014	217,379	122,628	18,123,993
2015	303,346	198,302	27,429,472
2016	228,983	203,449	11,851,645
2017	205,740	212,293	18,100,094
2018	287,476	299,274	15,469,183
Total	1,242,924	1,035,946	90,974,388

Loss Adjustment Expenses as a Percentage of Losses Paid

2014	1.2%	0.7%
2015	1.1%	0.7%
2016	1.9%	1.7%
2017	1.1%	1.2%
2018	1.9%	1.9%
Total	1.4%	1.1%

Selected Ratio of Expenses to Losses Paid

Average 2014 - 2018	1.4%	1.2%
Total		2.7%

Notes: (2) - (4) Based on data provided by client

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Expense Analysis**

Exhibit 17

Page 2

Office Expenses as a percentage of Surcharges collected

Calendar Year (1)	IT Services (2)	PCF Employee Services (3)	Rent (4)	Intra-Agency Transfer (5)	Participant Surcharges (6)
2014			6,000		12,188,627
2015	30,816		6,000	665,100	11,886,745
2016	41,592	41,428	6,000	665,100	21,182,760
2017	44,191	73,653	6,000	665,100	38,363,095
2018	30,785	76,662	6,749	689,000	43,031,702
Total	147,384	191,744	30,749	2,684,300	126,652,929

Operating Expenses as a Percentage of Premiums

2014	0.0%	0.0%	0.0%	0.0%
2015	0.3%	0.0%	0.1%	5.6%
2016	0.2%	0.2%	0.0%	3.1%
2017	0.1%	0.2%	0.0%	1.7%
2018	0.1%	0.2%	0.0%	1.6%
Total	0.1%	0.2%	0.0%	2.1%

Selected Ratio of Expenses to Premiums

Average 2014 - 2018	0.1%	0.1%	0.0%	2.4%
Total				2.7%

Notes: (2) - (6) Based on data provided by client

**New Mexico Patients' Compensation Fund**  
**Reserves as of 12/31/2018**  
**Expense Analysis**

Batch Claim Reinsurance as a Percentage of Surcharges collected

<u>Calendar Year</u>	<u>Batch Claim Reinsurance *</u>	<u>Participant Surcharges</u>	<u>Reinsurance as % of Surcharges</u>	<u>Selected Percentage</u>
(1)	(2)	(3)	(4)	(5)
2014	0	12,188,627	0.0%	
2015	0	11,886,745	0.0%	
2016	0	21,182,760	0.0%	
2017	1,399,296	38,363,095	3.6%	
2018	2,975,445	43,031,702	6.9%	
Total	4,374,741	126,652,929	3.5%	6.0%

Notes: (2) - (5) Based on data provided by client  
\* applies to both doctors and hospitals