Actuarial Committee

Meeting Minutes

Date	Time	Location	Staff Contact
December 8, 2020	9:30 AM	Webinar teleconference	David M. Bellusci

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Members	Representing
Mauro Garcia	Zurich North America
Ika Irsan	Republic Indemnity Company of America
Miranda Ma	American International Group
Joanne Ottone	Berkshire Hathaway Homestate Companies
Jill Petker	Liberty Mutual Group
Mark Priven	Public Members of Governing Committee
Kate Smith	State Compensation Insurance Fund
Bryan Ware	AmTrust
Chris Westermeyer	Travelers

California Department of Insurance
Giovanni Muzzarelli
Mitra Sanandajifar

WCIRB
Bill Mudge
David Bellusci
Laura Carstensen
Tony Milano
Serina Wu
Julia Zhang

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The webinar teleconference meeting of the Actuarial Committee was called to order at 9:30 AM following a reminder of applicable antitrust restrictions, with Mr. David Bellusci, Executive Vice President and Chief Actuary, presiding.

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Approval of Minutes
The Minutes of the meetings held on August 4, 2020, August 10, 2020 and September 8, 2020 were distributed to the Committee members in advance of the meeting for review. As there were no corrections to these Minutes, a motion was made, seconded and unanimously approved to adopt these Minutes as written.

Notice

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Item II
Working Group Meeting Summaries

The summary of the Actuarial Research Working Group meeting held on October 6, 2020 was included in the Agenda for the Committee's review and was accepted by the Committee.

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Actuarial Research Working Group

Meeting Summary

To: Participants of the Actuarial Research Working Group
From: Laura Carstensen
Date: November 24, 2020

RE: Summary of October 6, 2020 Meeting

Insurer Meeting Participants Were Reminded of the Antitrust Notice
As members of the Workers' Compensation Insurance Rating Bureau of California, you are bound, when involved in meetings or other activities of the WCIRB California, to limit your actions (and discussions other than social ones) to matters relating to the business of the WCIRB California. Matters that do not relate directly to WCIRB California business should be avoided. Members should particularly avoid discussions or conduct that could be construed as intended to affect competition (or access to markets). Thus, as members, you should not discuss or pursue the business interests of individual insurers or others, including, in particular, the plans of individual members involving, or the possibility or desirability of (a) raising, lowering, or stabilizing prices (premiums or commissions); (b) doing business or refusing to do business with particular, or classes of, insurers, reinsurers, agents, brokers, or insureds, or in particular locales; or (c) potential actions that would affect the availability of products or service either generally or in specific markets or locales.

Discussion Topics
At the meeting, the following topics were discussed.

A. Experience Rating Eligibility

The Working Group was informed that the WCIRB has investigated the predictive power of loss experience for employers who are currently not experience rated. Lowering the eligibility threshold would help to incentivize safety for smaller employers.

Staff developed optimal primary thresholds for employers with expected loss sizes below the current threshold using the same methodology that was used to compute the optimized thresholds used in the Experience Rating Plan and calculated the indicated experience modifications using these thresholds. Staff shared exhibits showing that while most of these small employers were claim-free during the experience period, the employers who incurred claims in the experience period were significantly more likely to incur claims in the projection period. Staff also shared quintile tests showing that loss ratios in the experience period were predictive of loss ratios in the projection period for risks significantly below the current eligibility threshold and that the variance ratio was typically below 60%.

Staff presented research showing that experience modifications optimized for and calculated with five years of experience did not outperform experience modifications based on three years of

experience. Given these results and many of concerns with extending the length of the experience period, staff did not recommend extending the experience period to five years.

Staff observed that, because optimal primary thresholds increase more slowly than the expected loss associated with a particular threshold, larger risks effectively have a lower cap for the impact of a single claim on their experience modification. Staff presented an option to cap experience modifications based on the number of claims incurred in the experience period. This would ensure that the impact of a single claim for risks currently below the eligibility threshold does not exceed that for risks currently just above the eligibility threshold. This would help reduce the volatility of year over year changes in experience modifications for smaller risks while decreasing the efficiency of the overall plan only slightly.

Several Working Group members expressed support of the count-based caps as a basis to reduce potential experience rating plan volatility for very small employers. One member asked how the caps would be updated. Another member suggested considering the impact of defining the caps per occurrence rather than per claim. Some members expressed concerns about the potential impact of significantly lowering the experience rating eligibility threshold on contractors. Staff agreed to review this impact by industry sector and would discuss these impacts in future outreach efforts.

One member suggested that the impact of a single claim should be lower than in the proposal shown since, while more employers who have claims during the experience period are more likely to have claims in the projection period, there are also a significant number who do not have any claims in the projection period. Another member suggested that any proposal should rely on the actuarially indicated modifications as they enhance the efficiency of the plan.

The Working Group was advised that staff will present an update to the Actuarial Committee to solicit additional feedback regarding a potential change in the Experience Rating Plan experience rating eligibility.

B. Classification Ratemaking Loss Development

The Working Group was reminded that the WCIRB has begun a multi-year review of the classification ratemaking process and that loss development was the first component being studied. The Working Group was reminded that at the March 3, 2020 meeting, it was agreed that this study would focus on limited loss development rather than unlimited loss development.

Staff presented the current methodology for dividing classifications into loss development groups (LDGs), which is based on an iterative bifurcation of classifications using a Kruskal-Wallis test to determine the optimal division of classifications.

The Working Group was shown several alternative development groupings under consideration. Four of these options were based primarily on classification, while the final option used part of body, claim status, injury type and cumulative trauma indicators to determine groups. The first two classification-based alterntives found groups using a Kruskal-Wallis bifurcation, as in the past. However, updated versions determined LDGs using development on open claims only. The first alternative would develop all claims in a LDG together, while the second alternative would develop open claims using the newly found LDGs and develop all closed claims as a single

group. The third and fourth alternatives were analogous to the first and second, but used a decision tree in lieu of the Kruskal-Wallis bifurcation to determine optimal LDGs. The decision trees are a supervised machine learning method that used development on individual claims, as opposed to aggregate development, to determine optimal groups. The Gini index is used to measure the homogeneity of possible groups. The final alternative used a decision tree along with the previously mentioned claim characteristics to determine development groups.

Staff presented the results for each alternative and noted that staff judged alternatives by their accuracy, the level of distinction between groups, simplicity of implementation and explanation, and by the consistency of development patterns across maturities. A Working Group member noted, and staff agreed, that inconsistency at later maturities would be acceptable if differences at earlier maturities were large enough.

Staff noted that the classification groupings using the Kruskal-Wallis bifurcation and the decision tree methods were very similar. This added confidence to the results of both methods, given that determinations were made using aggregate development in one case and individual claim development in the other, along with differences in the optimization decision.

While reviewing the performance of the alternatives, staff noted that, on an observation-weighted basis, the decision tree alternative using claim characteristics consistently outperformed the other methods. Staff attributed this to the method's ability to successfully determine characteristics that predict development.

Ultimately, staff recommended developing claims using LDGs determined using a Kruskal-Wallis bifurcation for open claims along with separate development of closed claims. Staff noted that for any method using claim characterstics that can change between maturities, particularly claim status, separate development factor triangles would be needed for claims known open at report level 1, known open at report level 2, and so on. The Working Group did not see this as a significant concern, but requested that these triangles be available in an electronic format.

The Working Group was advised that staff will present an update to the Actuarial Committee to solicit additional feedback regarding loss development methodologies for classification ratemaking.

Item AC16-06-05
Update on Medical Severity Trends by Component

Staff presented an update on the medical severity trends using the WCIRB medical transaction data from July 1, 2012 through June 30, 2020. The update also includes a comparison of the severity trends before and after the COVID-19 pandemic started.

The Committee was advised that the share of total medical payments made to different service types in the first half of service year (SY) 2020 remain similar to that of the second half of SY 2019 except for a slight increase in the payment share for pharmaceuticals. While the payment share for pharmaceuticals decreased by 78% in the past eight years, there was early indication that the payment share for pharmaceuticals started to increase in 2020 likely due to a higher level of pharmaceutical use since the pandemic.

Staff noted some major differences in the severity trends between the pre-COVID-19 period in 2020 and the COVID-19 pandemic period. Specifically, the overall medical severity increased slightly (+3%) in the pre-COVID-19 period in 2020 but dropped significantly (-7%) after the pandemic started. The decline was mostly related to the suspension of elective medical services during the stay-at-home period and reflected in the sharp drop in inpatient and outpatient cost per claim. Pharmaceutical cost per claim continued to decline (-14%) before the pandemic but the cost level started to trend up (+14%) since then. The sharp increase was mostly driven by higher costs per prescription and increased utilization of non-opioids. Staff also noted that despite the significant growth in telemedicine services and costs per claim (by more than 60 fold) during the pandemic, the share of total medical payments for telemedicine services remained small (1.3%). The Committee was advised that staff plans to continue monitoring changes in both pharmaceutical and telemedicine costs related to the pandemic.

Item AC20-04-04
COVID-19 Crisis

Staff presented an update to the impact of the pandemic on medical treatment patterns based on the WCIRB's medical transaction data updated through November 2020. The analysis compared the patterns of medical treatment utilization and costs observed in 2020 in both the pre-COVID-19 period and the COVID-19 period through September to those for the same period in 2019. The comparison was based on the medical transaction data of a subset of insurers that submit medical transaction data monthly.

- Staff observed that the number of active claims, overall medical services per claim and the total paid per claim dropped significantly in the last two weeks of March, April and May, but service volumes and the medical payments per claim started to rebound between June and September. One Committee member suggested exploring the medical severity trends for all claims that stayed open in 2020 to further parse out the pandemic impact on medical care delays. Staff agreed to explore the issue in the next update.

- Conversely, compared to the same period in 2019, the average pharmaceutical payments per claim continued to remain at a higher level throughout the pandemic except for April and September. The increases were mostly driven by a higher level of utilization and paid per transaction that was likely due to a longer prescription length for non-opioids.

- Staff highlighted the surge in telemedicine utilization that started in late March and continued through September compared to the same period in 2019.

- Staff also shared the preliminary findings of the pandemic impact on claims of different ages. The analysis compares the medical severity of claims of different ages in 2020 to the same period in 2019. Staff noted that newer claims had higher medical severity in 2020 compared to 2019 than other claims. Staff suggested that this is likely due to more smaller claims not being filed during the pandemic. However, claims of all age groups had higher pharmaceutical cost per claim in 2020 than 2019. The Committee was further advised that the number of claims in each age group tends to be small, and the results presented are an initial look at the pandemic impact on different claim groups.

Staff also summarized the most current information available from the Division of Workers' Compensation and the WCIRB's indemnity transaction data, The Committee was advised that the ratio of workers' compensation claims filed to statewide COVID-19 infections have continued to range between 4% and 6%. Staff also advised the Committee that the share of total claims by industry sector due to COVID-19 for the March through November period range from 3% in the information sector to 36% in the health care sector. Staff also summarized information showing that more than one-quarter of COVID-19 death claims were reported to the employer after the date of death.

Item AC20-012-01
9/30/2020 Experience Review

Staff presented a summary of accident year experience evaluated as of September 30, 2020 that was included in the Agenda. The Committee was advised that, in general, loss development patterns in the third quarter 2020 data appeared more typical of the longer-term trend compared to the anomalous patterns experienced in the second quarter. However, it was also noted that claim settlement rates for accident years 2018 and 2019 continued to decrease sharply in the third quarter after years of increases and the number of claims reported for accident year 2020 continued to be significantly lower than in recent prior accident years.

The Committee discussed how loss development occurring in 2020 should be used to project future claim development. Staff advised the Committee that it plans to review loss development and claim settlement patterns during the pandemic with pre-pandemic patterns using medical transaction data and aggregate financial data and report back to the Committee in early 2021. A Committee member noted that, although the third quarter 2020 development appeared more typical than in the second quarter, there was not yet a sign of a significant “bounce back” of services that would have been performed in the second quarter.

Staff noted that the projected wage inflation from the September 2020 UCLA Anderson forecast showed a larger increase for 2020 with a modest change in 2021. Staff noted that some of this pattern is likely a result of mix shifts in 2020 and 2021 due to the economic downturn. Staff also noted that, given that premiums are on-leveled to the estimated average policy period level (January 1, 2021 to August 30, 2021 in the Agenda), the net impact of these changes did not materially impact the projection.

The Committee noted that the number of reported medical-only claims continued to decline significantly in the third quarter, while the number of reported indemnity claims increased, likely a result of many COVID-19 claims being filed. A Committee member noted that the filing of post-termination cumulative trauma claims may be delayed due to the effect of the economic stimulus packages. It was also noted that accident year 2020 indemnity severities show a moderate increase through nine months while average medical and paid ALAE severities show significant declines. It was noted that the figures shown at the meeting include COVID-19 claims but staff will be able to exclude COVID-19 claim data from accident year 2020 experience by the time the Committee reviews December 31, 2020 experience.

Staff noted that written premium development declined in the third quarter of 2020 with the largest declines occurring on 2019 policies as many of those policies were audited during the pandemic period. A Committee member noted that there will be several challenges with using the calendar/accident year 2020 loss ratio as a basis for the projection in the September 1, 2021 pure premium rate filing. Staff agreed to review these issues with the Committee in the first quarter of 2021.

Item AC20-12-02
Review of Projection Based on 9 Months

The Committee was reminded that, at the December 5, 2019 meeting, in light of the upcoming transition to a September 1 rate filing effective date, several Committee members recommended review of preliminary projections of the most recent accident year cost levels based on 9-month experience. Staff presented a study that reviewed data from accident years 2005 to 2019 to model the reliability of 9 months data as a predictor of year-end experience. Staff presented the modeling methods as applied to frequency changes and severity changes. Staff noted that 9 months data can be a reasonable indicator of the year-end frequency change and medical severity change. Due to the immaturity of indemnity claim experience at 9 months, it was noted that there might be limited value of 9-month experience in predicting the annual indemnity severity change. Staff also noted that historical 9 to 12 months loss development factors and earned premium development factors were relatively stable.

The Committee was reminded that, due to the COVID-19 pandemic, 2020 and 2021 earned premium development will likely vary from the historical pattern. Similarly, it was observed that accident year 2020 loss development will likely be anomalous due to the pandemic.

Staff presented the fourth quarter 2020 projections based on September 30, 2020 experience. Staff advised the Committee that the next steps for the analysis are to reflect on-leveled earned premium and losses to analyze loss ratio trends and continue to recalibrate the model. Following the discussion, the Committee accepted staff's analysis. A Committee member recommended being cautious on using 9 months experience as a predictor of annual trends and projections given the immaturity of the claims experience and relatively large size of some of the prediction intervals.

Item AC20-12-05
Special Data Call for COVID-19 Claims

The Committee was reminded that, at the September 8, 2020 meeting, a Committee member suggested collecting additional aggregate financial information on the specific number and cost of COVID-19 claims. Staff advised the Committee that, based on a review of this suggestion, it plans to issue a supplemental call for accident year 2020 COVID-19 claims valued as of December 31, 2020 to be due in February 2021 and to make changes to the eSCAD system to add COVID-19 claim information to the WCIRB's Quarterly Call beginning with the Quarterly Call for First Quarter 2021. Staff noted that the supplemental call includes standard count, loss and paid ALAE information on COVID-19 claims. A Committee member suggested adding other claims information from the Quarterly Call, such as paid medical losses on medical-only claims, to the supplemental call for COVID-19 claim information as this data are used in some of the ratemaking adjustments. Staff agreed to add these elements to the call.

The Committee was advised that, in the California Department of Insurance (CDI) Decision on the January 1, 2021 Pure Premium Rate Filing, the CDI directed the WCIRB to collect "data of aggregate premium charged for any rate component and/or rating plan that includes an adjustment for COVID-19." Staff advised the Committee that it plans to request COVID-19 premium information on the WCIRB's Quarterly Call beginning with the Quarterly Call for First Quarter 2021. A Committee member suggested creating a statistical code to assist insurers in tracking these charges. Another Committee member suggested providing some lead time for insurers to provide the requested information given the challenges in tracking and compiling this data which may differ by insurer. Staff agreed to discuss this with CDI staff and provide WCIRB members more communication on the new requirements in the near future.

Following the discussion, the consensus of the Committee was to move forward with these changes as recommended by staff.

Item AC20-12-08
Potential Changes to Collection of Transaction Data

The Committee was reminded that, since 2012, the WCIRB has collected detailed medical transaction information on a relatively contemporaneous basis and that the information has been used in ratemaking and research and in several components of the pure premium rate filing. The Committee was also reminded that, in 2017, the WCIRB began collecting detailed indemnity transaction information on a voluntary basis and began collecting this information as a mandatory data call in 2020. This detailed transaction data has been very useful in understanding the changes in claim reporting patterns due to the COVID-19 pandemic and resulting economic downturn. Staff presented two potential changes to the collection of transaction data which would enhance WCIRB ratemaking and research capabilities.

The Committee was advised that the current eligibility threshold requirement for both data calls is 1% of statewide written pure premium and that, over time, the market share represented by insurers writing more than 1% of the market has decreased. Recently, staff solicited feedback on a proposal to decrease the eligibility threshold for both calls to 0.5% and the feedback received suggested that, with sufficent lead time, newly elligible insurers would be able to provide this information. Based on this feedback and the increasing use of the data for ratemaking and research, staff recommended the lowering of the eligibility threshold requirement from 1% to 0.5%. Staff noted that, if approved, this change would be phased in for medical transactions as of January 1, 2022 and indemnity transactions as of July 1, 2023.

The Committee was reminded that medical transaction data is currently required to be submitted either quarterly or monthly while indemnity transaction data is required to be submitted no less frequently than monthly. All data is due to the WCIRB by the end of the quarter subsequent to when the transaction occurred. Because near contemporaneous data has recently become so important, staff solicited feedback on a proposal to require medical transaction data to be submitted no less frequently than monthly with all transaction data due to the WCIRB by sixty days from the end of the month the transaction occured. Based on the feedback received and the increasing reliance on transaction data, the Committee was advised that staff was proposing to require all transaction data to be submitted no less frequently than monthly with the proposal to be effective for transactions as of January 1, 2023.

The Committee was supportive of the proposed changes that were to be referred to the WCIRB Govening Committee for adoption.

Item AC20-12-07
Potential 2021 Actuarial and Research Projects

The Committee reviewed the list of potential actuarial and research studies included in the Agenda that are under consideration for 2021. It was noted that many of the listed studies were either requested by the California Department of Insurance (CDI), developed in response to issues raised in recent CDI Decisions, required by legislation or related to the COVID-19 pandemic.

The Committee was advised that, in 2021, staff anticipates continuing to focus on the continuing impact of the COVID-19 pandemic with particular emphasis on the severity of COVID-19 claims. As part of that analysis, as well as other research purposes, staff noted it is considering acquiring access to a large group health dataset that will include medical transaction data on COVID-19 claims. After further discussion, the consensus of the Committee was that the schedule of projects outlined in the Agenda materials to be undertaken in 2021 was appropriate.

Item AC20-12-09
2021 Schedule of Meetings

The following schedule of Actuarial Committee meetings for 2021 was approved by the Committee. All meetings will be held by teleconference and begin at 9:00 AM (Pacific Time).

Tuesday, February 16, 2021

Tuesday, March 16, 2021

Thursday, April 15, 2021

Tuesday, June 22, 2021

Tuesday, September 14, 2021

Tuesday, December 7, 2021

The meeting was adjourned at 1:00 PM.

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Note to Committee Members: These Minutes, as written, have not been approved. Please refer to the meeting scheduled for February 16, 2021 for approval and/or modification.