AMERICAN ACADEMY *of* ACTUARIES

Important Considerations When Analyzing Medical Malpractice Insurance Closed-Claim Databases

Medical Malpractice Subcommittee
American Academy of Actuaries

April 20, 2005

The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification, and practice, and the Code of Professional Conduct for all actuaries practicing in the United States.

1100 Seventeenth Street NW Seventh Floor Washington, DC 20036 Telephone 202 223 8196 Facsimile 202 872 1948

The Medical Malpractice Subcommittee of the American Academy of Actuaries is pleased to offer these comments regarding the use of medical malpractice insurance closed-claim databases (CCDs) for public consumption. The purpose of these comments is to discuss some of the factors that should be considered when working with CCDs.

We at the Academy hope that this comment letter will serve as a foundation for both actuaries and non-actuaries working with CCDs. We believe these comments will help CCD researchers consider and evaluate critical factors involving CCDs before beginning their work and forming conclusions.

Medical Malpractice Insurance Closed-Claim Databases Considerations

1. Exclusion of Claims Closed Without Indemnity Payment

Some CCDs exclude claims that were closed without an indemnity payment. Based on industry information, 70 percent to 80 percent of all medical malpractice insurance claims close without an indemnity payment. Therefore, research performed on any CCD that excludes claims closed without payment does not include a major cost component, namely the cost of investigating and defending these medical malpractice insurance claims. The loss adjustment expense (LAE) for these excluded claims would include items such as claim investigation, medical examination, defense attorney fees, and fees/salaries for claim adjusters and others working on the defense of a claim.

With LAE representing approximately one third of all insured loss and LAE dollars incurred by the insurance industry, any study of medical malpractice insurance loss and LAE leaves a significant component unaddressed if claims closed without an indemnity payment are excluded.

2. Exclusion of Open Claims

CCDs include only those claims that have been closed. Any claims that have not been closed — such as open medical malpractice claims in the discovery stage, undergoing investigation, negotiating a settlement, or progressing through a trial — would not be included in the CCD. Since medical malpractice insurance claims take several years on average from occurrence to closing, with some cases taking in excess of 10 years to close, the use of closed- claim data excludes a significant amount of information on open cases that may be more reflective of the current claim cost environment.

It is important to consider the impact of analyzing data that does not include open claims. This is especially important given the historical volatility of medical malpractice insurance costs (e.g., changes in severity trends) and the impact of recently passed legislated changes or judicial decisions that may be better reflected in open claims.

3. Relationship of Closed Claim Data and Ratemaking

For a number of actuarial reasons, including those noted here, CCDs are generally not used by medical malpractice insurers to produce rate indications. Rates developed by medical malpractice insurers generally use data that includes closed and open claims.

Actuarial Standards of Practice (ASOP) No. 9[1] on ratemaking states, "A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer." In order to produce an actuarially sound estimate, actuaries generally use more information than is available from just-closed claims.

4. Impacts of Tort Reform

It is important that any study reasonably reflect, if possible, the impact of tort reform changes on the CCD. In addition, any assumptions or adjustments to the analysis that reflect the impact of tort reforms should be discussed. Such discussions might include the number of actual post-tort reform claims included in their database, adjustments made to pre-tort reform claims for new caps, ability to properly segment data into the new cap buckets using current CCD identifier fields, ability to analyze economic versus noneconomic damages, etc.

The ability to quantify the true impact of any tort reform is complicated by the uncertainty regarding the constitutionality of reforms passed by each state legislature. Using Texas and Florida, two states with closed-claim databases that recently passed tort reforms including caps on noneconomic damages, we can illustrate the varying degrees of uncertainty. In Florida, the caps are currently being challenged in court to determine whether they will be declared constitutional. This process could take up to five or more years. At the other end of the spectrum, the Texas cap on noneconomic damages should not be subject to constitutional challenge because it was ratified by voters approving Proposition 12.

5. Changes in The Structure of the CCD Over Time

CCDs are commonly developed and maintained by state regulators through data calls to numerous reporting entities over many years. It is important for the user of the CCD to understand any changes that have been made in the CCDs format over time. It is not uncommon for databases and their fields to be periodically reviewed and enhanced. Since previously submitted data are frequently not revised, a researcher should understand the nature and timing of these enhancements, make proper adjustments to ensure consistent treatment of data, and document their handling of these adjustments in their analysis.

For example, the remapping of old fields and the addition of new fields during CCD enhancements may require reformatting older database records into the newer formats, to the extent possible. If historical database changes are not well understood by the researcher, trends developed using pre-enhancement and post-enhancement data could lead to the misinterpretation of results because of improper data comparisons.

[1] A PDF version of ASOP No. 9 is available from the Academy's web-site www.actuary.org or by directly accessing www.actuarialstandardsboard.org/asops.htm.

6. Changes in The Entities Reporting to the CCD

Data may be affected by changes in the entities required to report closed claims. For example, if the CCD historically included only claims reported by insurers and a decision was made to include closed claims reported by captives or self-insureds, it would be important to consider this change in any analysis. If this change was not known or disclosed, a rise in closed-claim payments could be misinterpreted as a large increase in payments, not a change caused by new reporting entities entering the database. The converse could also be true, whereby fewer claims might be caused by fewer reporting entities.

7. Time Period Considered For Analysis

It is important to understand the behavior of economic circumstances (e.g., level of general inflation, impact of improving medical technology on costs, etc.) that affect medical malpractice insurance claims over time. When selecting the time period for review, the researcher must consider multi-year changes in factors affecting the frequency and severity of claims that may impact the ultimate conclusions of the analysis.

8. Integrity of CCDs

It is important to recognize that CCDs may not be subject to audit for accuracy and consistency. This leaves the interpretation of CCD fields up to each of the reporting entities. For example, there may be inconsistencies in how each reporting entity may itemize total loss dollars (e.g., dollars entered in total, dollars split into economic vs. non-economic damages, lost wages vs. medical costs, etc.) or how multiple plaintiffs/defendants for the same event are entered into the database. In some cases, inconsistent interpretations of data fields may be such that adjustments are necessary to form reasonable conclusions.

9. Handling of Policy Attributes

The interaction of deductibles, primary insurance policy claims and excess insurance policy claims that are included in the CCD should be understood. For example, if a large claim is subject to coverage under both a primary insurance policy and an excess insurance policy, it is important that the researcher re-connect the two records in the CCD to properly reflect the full value of the claim. Failure to do so could affect conclusions as to the frequency and severity of claims. Similarly, if the claim record identifies only the portion of loss in excess of a deductible or self-insured retention, the full value of the claim could be understated.

10. CCD versus Insurer Trends

It may be important for the user to understand the differences between the loss experience and trends among the various classes of risks in the database. Therefore, it may not be appropriate to infer CCD trends for an individual insurer without comparing the company's mix of business to the mix represented in the CCD. For example, a medical malpractice insurer that writes a heavy concentration of low-risk specialties (e.g., chiropractors, allergists, dermatologists — no surgery) may see trends that are different from those derived from reviewing the entire CCD, which includes all specialties (e.g., chiropractors, neurosurgeons, OB/GYNs), since low-risk specialties typically have minimal exposure to larger jury awards.

11. Consideration of Policy Limits Purchased by Insureds

It is important to understand the trends in policy limits purchased by physicians and hospitals over time. When selecting the time period for review, the researcher must consider multi-year changes in policy limits that may affect the frequency and severity of claims that may impact the ultimate conclusions of the analysis.

12. Adjustments to CCD Data

In general, it is helpful to a reader's understanding of a CCD-based analysis for the report to document any adjustments made to the closed-claim data that could have a significant effect on analysis results. This documentation should also include identification of the potential impacts on the final conclusions made in the analysis. Thorough documentation reduces the likelihood that the conclusions, methodologies, or assumptions of the analysis will be misunderstood by the readers.

The following hypothetical example demonstrates the importance of documenting adjustments.

> State X is currently in the midst of a medical malpractice insurance crisis. CCD payments have been increasing at six percent a year and the number of insurers covering physicians has dropped from 20 insurers in 2000 to two insurers in 2002.

State X 2000 CCD payments:	$100 million
State X 2002 CCD payments:	$100 million x (1.06) x (1.06) = $112.5 million
2000 Active writers:	20 insurers
2002 Active writers:	2 insurers
Implied 2000 losses per active writer:	$100 million / 20 = $5 million
Implied 2002 losses per active writer:	$112.4 million / 2 = $56.2 million
Implied annual change:	($56.2 million / 5 million)$^{.5}$ – 1 = 235%

The researcher in this example could use two different headlines in the final report:

Headline 1:

"Medical malpractice insurer severity trends increase six percent per year"

Headline 2:

"Medical malpractice insurer severity trends adjusted for declines in actively writing insurers increase 235 percent per year."

Given the difference in the above severity trends and the potential shock value of headline 2, it is easy to see how important it would be for the researcher in this example to document any adjustments made to the closed-claim data and to discuss the pros and cons of calculating severities adjusted for the number of active writers.

In the end, it is important for the CCD researcher to review publicly available information addressing potential issues and concerns regarding the use of a CCD. Such informational sources could include CCD documentation, discussions with insurance department personnel, special reports mandated by the governor or legislature, and Senate or House testimony. The ability of CCD researchers to discuss any assumptions and adjustments made to the data and disclose important considerations in their reports, ultimately increases the credibility of their analysis and helps to reduce the likelihood that the reports may be misunderstood.