Appendix B
Society of Actuaries - ACO Episode Risk-Adjustment Study
Fee Schedule Normalization Methodology

In developing a methodology for claims risk adjustment as part of The Society of Actuaries (SOA) Accountable Care Organizations (ACOs) project, we need to normalize all charges in the underlying data set to a common fee schedule so that the resulting cost metrics are not influenced by geographic reimbursement differences. This section summarizes the methodology we used to normalize charges for this project.

In general, we attempted to re-price all claims at the average allowed amount for all similar claims, as defined generally by procedure code. Given the complexity of claims and the multiple contributors of data contained with the data sample, certain exceptions were made as described below.

Hospital Inpatient Facility

Conceptually it would be ideal to normalize all Hospital Inpatient Facility (HIF) charges based on the relative reimbursable resources used within each claim. However, because HIF claims are paid under varying contractual arrangements, many data contributors to the MarketScan data do not provide complete (and is some cases, any) ICD9 codes. Thus, it is not possible to develop a mechanism to normalize charges based on a resource-based relative value scale.

As an alternative, we normalized the charges based on the average cost per admission by DRG. Although this method is not ideal, it does preserve the relative cost impact, to an episode, of the relative average costs by type of admission. Few claims without adequate coding are assigned the average cost per service by Milliman Health Cost Guideline (HCG) service category. Exhibits I in the appendix shows the detail fee schedules used for re-pricing HIF claims.

Hospital Outpatient Facility

Hospital Outpatient Facility (HOF) claims has the same issue as HIF claims. Many of the claims do not have sufficient information to assign an RBRVS or HCPCS code and its associated cost. We followed a similar process as HIF by calculating the average cost per service for all claims with sufficient information. This average cost was used for all services with the same procedure code. Claims without adequate coding are assigned the average cost per service by HCG service category. Exhibits II in the appendix shows the detail fee schedules used for re-pricing HOF claims.

Professional and Other Ancillary Services

Almost all professional claims and other ancillary claims other than HIF and HOF claims have CPT or HCPCS codes. Therefore, we normalized the charges using the average allowed amount by CPT or HCPCS code. For the small fraction of claims without these codes, we normalized the charges based on the average charge per service by each HCG service category. Exhibits III in the appendix shows the detail fee schedules used for re-pricing non HIF non HOF claims.

Pharmacy

Pharmacy allowed amounts were not normalized to a common fee schedule. Generally, these claims are expected to have less geographic variance than medical claims. Unlike for medical services, the pharmaceutical industry routinely creates “replacement” therapies or generic equivalents, which complicates the evaluation of historical data. Further adjustments to allowed amounts for pharmacy may be indicated based on the outcome of the study, but is beyond the scope of our project.