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Consultants and Actuaries

The 2007 Milliman Health Cost Guidelines

Building on 50 Years of Experience: A Structured Approach to Managing Healthcare Costs and Pricing

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Forty years ago, a semi-private hospital room in the U.S. cost between \$20 and \$47 per day. By comparison, the billed room and board charge for an average non-maternity room in 2007 is \$2,745 per day. For more than 50 years, Milliman's Health Cost Guidelines (HCGs) have been helping insurers gain precise insight into the impact of rising health-care costs and trends by capitalizing on an increasingly rich information environment.

What began in 1954 as a modest effort to track claim costs by hospital, surgical, medical, and other categories has evolved into a sophisticated series of guidelines and software-based tools derived from an abundance of information sources. Today, Milliman is one of the largest global independent actuarial and consultant firms, with 47 offices in principal cities worldwide. More than 100 leading national insurers rely on Milliman's Health Cost Guidelines and accompanying tools to model healthcare utilization and estimate claim costs. Versions of the HCGs are also now available in healthcare markets outside the U.S. The HCGs can be used to adjust national average healthcare costs for specific geographic areas, benefits, reimbursement structures, and plan characteristics, and for these reasons traditional health carriers, managed care organizations, and third-party administrators find them valuable for product evaluation and pricing. Milliman's own in-house consultants use the HCGs to provide expert consultation and insight into the key drivers of healthcare costs and utilization.

Milliman publishes Health Cost Guidelines for commercial, dental, and age 65 and over populations and also offers Reinsurance Cost Guidelines, Individual Medical Underwriting Guidelines, and Small Group Medical Underwriting Guidelines. They can be used separately or in combination, depending on the client's need. Milliman consultants can assist clients in choosing which Guidelines are best suited to their organizations' unique requirements.

Milliman's tradition of providing superb analytical tools and trustworthy information continues with the release of the 2007 Commercial, Dental, and Reinsurance Cost Guidelines. As in past years, the 2007 HCGs are expanded and refined from an impressive information base:

- **The Health Cost Guidelines - Dental** reflect a substantial amount of research since the 2005 release. The summary Basic Tables have been updated to reflect revised age/gender slopes consistent with current data. The Claim Probability Distribu-

tions (CPDs) (adult, child, and member) have been updated based on new research and now include distributions for plans with 80/80/50 and 80/50/50 coinsurance levels. Starting claim costs and age/gender factors have been incorporated into the Orthodontic Rating section. Orthodontic CPDs for adults and children have been added for valuing alternative coinsurance levels and lifetime maximums. The HMO/PPO and Indemnity Rating sections have been updated consistent with the new Basic Tables and CPDs. Coding has been updated to reflect the new 2007 CDT codes. Dental implants pricing is also now included.

- **The Health Cost Guidelines - Commercial** includes three volumes: Commercial Rating Structures, Commercial Area Factors, and Commercial Claim Probability Distributions. The new release includes revised utilization and average charge levels for all types of services based on research using a database of more than 73 million member months compiled from multiple sources. An extensive amount of new data was also researched as part of the prescription drug update.
- **The Commercial Rating Structures** are used to determine utilization, charge levels and claim costs for health benefits provided by traditional fee-for-service plans, alternative delivery systems (such as HMOs, PPOs, or systems using modified fee-for-service reimbursement methods), and freestanding or integrated prescription drug programs. The Mandated Benefits section includes expanded organ transplant research. A separate prescription drug rating section provides a detailed analysis of prescription drug costs and benefits. Various cost-per-prescription continuance tables help model unit price variation and effectiveness of plan copays. The Managed Care Rating Model (MCRM) and Prescription Drug Rating Model (RXRM) are powerful automated versions of the Managed Care and Prescription Drug rating structures. Additionally, the MCRM has been enhanced in 2007 to incorporate hospital length-of-stay distribution tables.

- **The Commercial Area Factors** are used to adjust national average costs to specific geographic areas and are used in conjunction with Commercial Rating Structures to develop area-specific claim costs. The 2007 research focused on hospital inpatient utilization and charge factors.
- **The Commercial Claim Probability Distributions** help assess the value of deductibles, out-of-pocket maximums, and the effect of plan maximums and area factors by deductible level. They can also be used to develop high-deductible claim costs for reinsurance, individual stop-loss and pooling charges, risk charges, contingency margins, credibility and selection factors, and aggregate stop-loss structures. The 2007 CPDs were updated using the latest research data.
- **The Health Cost Guidelines - Reinsurance** aid in the pricing of high-deductible plans, offer rating structures for reinsurance used with fee-for-service or managed care plans for commercial or Medicare enrollees, and provide adjustment factors for dealing with the effects of trend leveraging for high deductibles. They also include adjustments for other high-cost services, including transplants, neonatal services, and AIDS treatments.
- **The Health Cost Guidelines - Ages 65 and Over** are used to rate Medicare+ Advantage, Medicare supplement, and retiree medical plans. Revised in November 2006, a major update is planned for release in Q4 2007. A separate section for calculating prescription drug claim costs is included. The rating sections reflect the most recent Medicare payment systems and include the Retiree Medical Rating Model (RMRM), which was developed for use with the employer-based retiree medical rating section.
- **The Medical Underwriting Guidelines (MUGs)** include information on approximately 1,400 conditions, prescription drug conversion tables for identifying potential drugs or conditions if only one or the other is listed on an application, and tools for the evaluation and development of appropriate premiums for medical risks inherent in a group or individual. Last updated in November 2006, the next major enhancement and research release for the MUGs is planned for publication in spring 2008. An interim update of the prescription drug index will be released at the end of Q3 2007. Web-based and Windows-based versions of the Individual and Small Group Medical Underwriting Guidelines are available.

Milliman continues to strive for excellence in providing the most complete and current rating tools possible to its clients worldwide. For more detailed information about the Health Cost Guidelines products, please contact your Milliman consultant or e-mail the Milliman Health Cost Guidelines manager at hcgmanager@milliman.com. Additional information can also be found on the Milliman Web site at <http://www.milliman.com>.