

EDUCATION AND EXAMINATION COMMITTEE
OF THE
SOCIETY OF ACTUARIES

COURSE 8 HEALTH, GROUP LIFE, AND MANAGED CARE STUDY NOTE

**COURSE 8 HEALTH, GROUP LIFE, AND MANAGED CARE CASE STUDY
CORE SECTION**

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**COURSE 8: HEALTH, GROUP LIFE, AND MANAGED CARE
CASE STUDY**

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I. INTRODUCTION

Wonderful Life Insurance Company (Wonderful Life) is a large stock life insurance company with 6,000 employees. Wonderful Life sells mainly group insurance to small and large employers. The company's corporate vision is to be a leader in the group insurance industry, to earn a competitive return for its stockholders, to offer a good value to employers while operating in a financially sustainable way, and to attract and retain valuable employees.

Wonderful Life has a large block of major medical business but has been expanding into other product lines. The company currently offers a full line of products, including but not limited to:

- Indemnity and preferred provider organization (PPO) group medical benefits
- Individual medical plans
- Group life
- Group and individual long-term-disability
- Specialty products.

Wonderful Life has a small managed care division that currently includes only one single location managed care organization (MCO), The Bedford Group. This division has not historically been a primary focus of the company but senior management has recently decided to target this business unit for aggressive growth. In order to accomplish this objective, Wonderful Life plans to develop or purchase existing MCOs in select target cities.

All numbers found in this case study are for illustration only and may not be representative of true costs or actual relationships. Any similarities with actual company results are purely coincidental.

II. CORPORATE OVERVIEW AND FINANCIALS

Wonderful Life maintains four primary business divisions. These divisions are:

- Administrative Services Only (ASO);
- Major Medical;
- Group Life and Disability (GLD); and
- Managed Care.

The ASO business division provides a range of services to large employers with self-insured medical plans. Wonderful Life also rents its PPO networks to third party

administrators; this business is also included as part of the ASO division. The Major Medical division includes fully insured indemnity and preferred provider organization health benefits for individuals and for small and mid-size employers. The Group Life and Disability division provides fully insured group life insurance to employers of all sizes, both group and individual disability products, and has very recently entered the long-term-care market. The Managed Care division currently includes only one MCO, The Bedford Group.

Management of each business division is allowed considerable autonomy in establishing division strategy; however, corporate management requires each division to maintain a reinsurance level that is appropriate for its product lines.

The combined financial results for all four divisions for the past three years are illustrated in Table C-1. All fully insured premiums are shown as a separate income line item from premium equivalents. Premium equivalents represent business sold through the ASO business unit. The financial details of the ASO business unit are not addressed in this case study. Premiums include all fully insured products of Wonderful Life, including the fully insured health business, individual and group long-term-disability, group long-term care, all group life products, and all business in the Managed Care division. Detailed financials are shown in this case study for the fully insured individual and group major medical products of the Major Medical division. Detailed financials for the Group Life and Disability and Managed Care divisions are addressed in the case studies for each applicable course extension. The financials provided in the case studies may not include all the product lines of the division.

The three-year financial statements illustrated in this case study are recast for 1997 and 1998, with claims expense estimates that reflect claim run-out through the end of 1999.

Wonderful Life has experienced stable financial results during the most recent three years. Total income has increased by over 11% for the past two years. However, total benefits and expenses have also increased by more than 11% during this time period, resulting in a fairly constant operating margin as a percentage of total premium and premium equivalents. Gross operating earnings are subject to an income tax in the company's regulatory environment. Post-tax operating earnings as a percentage of total premium and premium equivalents have also been steady during the last three years.

The 1999 year-end balance sheet for Wonderful Life is illustrated in Table C-2.

III. PRODUCT STRATEGY

Wonderful Life has a strong reputation in the self-insured and fully insured group major medical market. The company has spent considerable resources in developing its own preferred provider networks across the country. As a result, Wonderful Life is one of the top five providers nationally of ASO major medical business and one of the top three providers nationally for fully insured major medical business. Wonderful Life is

interested in increasing its market share in both the ASO and major medical business lines.

Wonderful Life has been slow to aggressively develop its managed care business but recognizes the need to provide these products in the current market. The company has therefore identified specific locations where it would like to develop a managed care network or purchase an existing managed care organization. Because of the breadth of the preferred provider networks, Wonderful Life already has a presence in many of these target locations. At this point, Wonderful Life is focusing its efforts to provide managed care to employer groups and does not intend to pursue the Medicare Risk or other specialty markets.

Wonderful Life has been expanding into other product lines, including group life, individual and group long-term-disability, and more recently, group long-term-care. Corporate management has been interested in growing these other business lines due to higher expected profit margins for these products relative to the medical business lines and to increase the company's presence in the employee benefits marketplace.

Marketing efforts have typically focused on the group market and been aimed at senior human resource executives. More recently, the company has begun to market at the employee and individual level.

IV. MAJOR MEDICAL DIVISION

The Major Medical division is active in several geographic markets predominately selling products featuring proprietary PPO networks. Through aggressive provider contracting efforts, the company has historically enjoyed favorable pricing levels for this business. The company continues to renew a relatively small block of indemnity business, which uses a traditional fee-for-service approach. The indemnity business is not a primary focus of the division and currently represents less than 5% of the division's total business. The Major Medical division is engaged solely in the indemnity and PPO businesses described. All health maintenance organization (HMO) and Point-of-Service (POS) business is administered and reported separately in the managed care business division.

Within the indemnity and PPO business, the division is active in both the large and small group markets. Small groups are defined as employers with 50 or fewer employees and large groups as employers with 51 or more total employees. Rates for small groups are based entirely on the rate manual whereas large groups are experience rated on either a prospective or retrospective basis. The division is also active in the individual market, which represents about 20% of total premiums in 1999. The products reported under the Major Medical division include only insured business where the company is at risk. The company also rents its provider networks to large self-insured employers and third party administrators, but that business is reported in the ASO division.

The group products are marketed primarily through consultants and brokers. The individual products are marketed through direct advertising to the consumer.

Financial Data

Table MM-1 illustrates detailed financial data for the Major Medical division for the past three years. The data included is in aggregate for all products and markets.

The last two years have seen steadily increasing revenues growing at a rate of over 11% per year over the entire period. However, the claims expense has been growing at approximately 13% annually, which has led to an increase in the medical loss ratio and decreasing gross margins. Fully insured premiums in this regulatory environment are subject to a premium tax, which is shown as an expense line item. Although general administrative expenses have decreased slightly as a percentage of total revenue and other expenses have held steady, the increase in claims expense has led to a decreasing level of operating margin. Investment income has remained strong over the period, resulting in fairly strong bottom line profitability for the division. Investment income for the division includes income associated with the assets allocated to the division as well as the earnings from operating cash flows.

Rate Manual

Table MM-2a and Table MM-2b outline the rating assumptions used for the group major medical line for new and renewal groups beginning January 1, 2000. The following is a brief discussion of each section of the rate manual shown in the table.

Base manual claims rates are on a gross basis with respect to deductibles and copayments, but are net of provider discounts on a geographically neutral basis. Base claim rates have not been reduced to reflect the \$50,000 pooling level used in experience rating. Rates are provided on a two-tier basis (employee only and employee plus dependents) as well as a composite (per employee) basis.

Claims trends are those that are appropriate for adjusting claims data for differing time periods. The claims trends are appropriate for adjusting actual claims experience as well as the manual claims rates. The trend rates are applicable for any month within the given calendar year. Trending is applied from the midpoint of the experience period to the midpoint of the projection period.

Administrative expenses are charged on a composite per employee basis regardless of whether dependents are covered. Commissions and the risk/profit load are calculated as a percentage of the gross premiums. All expenses are on a sliding scale by group size, which is based on the actual number of employees enrolled for coverage. For each type of expense, the same scale is used for both prospective and retrospective rating methods.

The credibility factors are expressed as the credibility percentage (weighting) to be applied to the group's own experience. Group size is again based on the number of employees enrolled.

There are four geographic regions in which the company does business. The region factors given adjust for both differences in expected utilization and provider payment levels relative to the overall company-wide level given by the manual claims rates. Because actual experience data is already region-specific, these factors should be used only to adjust the manual claims rates.

A full table of age and sex factors has not been provided in Table MM-2b. However, composite age and sex adjustment factors have been provided for each group in the experience table (Table MM-3).

The manual rate table includes benefit adjustment factors for the three most popular plan designs that represent over 95% of the business in-force. When necessary, the underwriting staff interpolates between the given factors to estimate benefit factors for deductible levels not given in the rate manual. The benefit factors are appropriate for adjusting either experience data (to a benefit level other than that in effect during the experience period) or the manual claims rates.

Gross premium rates are typically developed on a composite per employee basis and then adjusted to the desired rate relationship. The standard approach used by most groups is a two-tier structure with the same relationship between employee and employee plus dependents rates as the manual claims rates (2.5 to 1.0). Any client claim experience used in the development of the gross premium rates (as determined by the size of the group and the applicable credibility factors) is adjusted to exclude claims over \$50,000 and include pooling charges. Refer to Table MM-2b for additional notes related to the retrospective rating method.

Group Experience Data

Experience data for a sample of in-force groups of varying size has been provided in Table MM-3. All groups will be renewing their coverage in the first quarter of 2000. The experience period for all groups is from July 1, 1998 through June 30, 1999. The total claims amounts have already been adjusted to an incurred basis.

Annual exposure indicates the average number of employees in each coverage tier during the experience period. For these particular groups, the group's average demographic factor is assumed to be unchanged during the experience period or during the time between the end of the experience period and the effective period of the renewal rates.

Total claims for each group include all claim amounts net of provider discounts and deductibles, coinsurance, and copay amounts. The portion of total claims greater than \$50,000 for any single covered individual is shown in the next column as the amount of claims greater than \$50,000. Net claims less than \$50,000 are calculated as the difference between total claims and the amount of claims greater than \$50,000, and reflect claims net of a \$50,000 pooling level. Total premium is based on the number of employees and the current rates as charged for the current rating period. The remaining values are as defined in the rate manual.

Claim Lag Tables

Claim lag tables (Table MM-4a, MM-4b, MM-4c, and MM-4d) have been provided for all claims in the Major Medical division that were incurred and paid for a 36-month period beginning in January 1, 1997. The claims for each pay-out month are accumulated from the beginning of the period for each incurred month. Separate lag tables have been provided for hospital claims and non-hospital claims. Non-hospital claims include physician services, other professional services, and prescription drug claims.

The incurred date is defined as the date of admission for an inpatient hospital stay and the date of service for outpatient hospital and physician claims. There were no changes to the incurral date definitions during the time period shown in the tables. Claims are considered paid as of the date the check is printed and mailed.

Paid Claims Statistics Tables

Tables of claims department statistics have been provided separately for hospital (Table MM-5a) and non-hospital claims (Table MM-5b). Non-hospital claims include physician services, other professional services, and prescription drugs claims. Member exposure includes all employees and dependents. Paid claims and other statistics have been provided for a 36-month period beginning in January 1, 1997. The claims paid data represents all of the claims that were processed and paid in a given month regardless of incurral date.

The number of claims received includes all claims that have been received by the claims department both electronically and via paper during the given month. The number of claims paid includes all claims that have been processed during the month and paid by the end of the month. Month end claims inventory includes all claims that have been received but not paid by the end of the month. This inventory includes both claims that have not yet been processed as well as those that have been processed but require further research before being paid.

The “average days to process” statistic includes both electronic and paper claims that were payable based only on system edits and did not require any further investigation. It does not include claims that were stopped for further research for any reason.

Incurred But Not Reported Model Output

Tables of the raw output from the Major Medical division’s incurred but not reported (IBNR) reserve model are provided as Table MM-6a (hospital data) and Table MM-6b (non-hospital data, including physician services, other professional services, and prescription drug claims). Claims paid includes all claims paid in the indicated month, regardless of date of incurral. Incurred and paid claims includes all claims incurred in the indicated month and paid through the valuation period of December 31, 1999.

Completion factors are provided for each incurral month. These completion factors are developed using a straight six-month average completion factor methodology. The incurred estimate is calculated for each incurral month by dividing the incurred and paid claims by the month's completion factor, as determined by the six month average methodology. The per member per month (PMPM) claim cost estimate is calculated as the incurred estimate divided by the number of members for the applicable month. The raw IBNR estimate for each incurral month is calculated as the incurred estimate for each month, less the claims incurred and paid through the valuation date.

Processing Considerations Concerning Major Medical Claims Data

Several important changes in the major medical claims processing environment occurred during the time periods for which data has been supplied in the claim lag tables (Table MM-4a, MM-4b, MM-4c, and MM-4d). These changes should be taken into consideration when analyzing the given claims payment data.

In January 1998, the major medical claims payment system was converted from a proprietary system developed by and maintained by the Major Medical division to the EZ-Pay system. A third party software vendor maintains the EZ-Pay claims system. In order to convert to the new claims payment system, the Major Medical division needed to make significant changes to its payment methodology for contracted or preferred providers. This change was due to limited customization options within the new payment system.

The system change did not affect any claims paid prior to January 1, 1998. However, the new system increased the efficiency and accuracy of claim payments resulting in faster claims payment at all claim lags for the periods after January 1, 1998. Because the Major Medical division had formerly used a non-standard provider payment methodology that was relatively difficult for providers to administer, the change in provider payment necessitated by the system change also resulted in an increase in the speed of submission of claims by providers relative to the date of service.

In 1999, a corporate-wide initiative was developed to address possible year 2000 issues in Wonderful Life's information technology (IT) systems. As a result of this initiative, the Major Medical division claims department was directed to reduce inventories of claims that had been received but not yet processed or paid before the end of 1999. In order to accomplish this goal, the claims department began working overtime hours in July of 1999. In addition, several claims system edits for commonly approved claims were removed in order to speed up claims processing.

Because of its broad preferred provider networks, the Major Medical division receives a large percentage of its claims electronically. Over a long period of time (including both the current and previous system environments), electronic claims submissions have averaged over 80% of total claims for both hospital and physician claims. Most claims submitted electronically are processed without manual intervention although they are passed through numerous electronic edits to ensure accuracy. Audits have determined that over 99% of electronically submitted claims are paid accurately. Fewer than 20% of total claims are received on paper which require a longer processing and payment time

due to the necessity of manually keying and verifying the required data into the claims system.

V. PROSPECTIVE CLIENT

Bailey Industries, a white-collar company with approximately 1,500 employees, has requested that Wonderful Life propose on providing a number of employee benefit plans, including medical, group life, and long-term disability. Bailey Industries' employees are primarily located in a single metropolitan area. Bailey Industries' workforce demographics, salary distribution, and average years of service are shown in Table BI-1a. Demographic information for Bailey Industries is available on a four-tier basis. Information on Bailey Industries' current benefits plans is shown in Table BI-1b.

Bailey Industries currently offers its employees a choice of three medical plans on a two-tier basis. The majority of the employees are enrolled in a \$250 deductible, 80%/60% coinsurance PPO plan. Bailey Industries also offers an HMO option as well as a high deductible catastrophic plan. Approximately 10% of employees opt out of medical coverage. Employees contribute approximately 20% of the total cost of medical coverage regardless of coverage tier. Bailey Industries does not offer dental benefits. Employees do have the option of participating in a medical flexible spending account.

Bailey Industries provides all employees life insurance coverage of one times salary at no cost to the employee. Employees may elect to "buy-up" to a coverage level of 1.5, 2.0, 2.5, or 3.0 times salary. Bailey Industries offers employees the option to purchase spousal and/or child life coverage on an employee pay-all basis. Benefit amounts are limited to \$10,000 and \$5,000 for spousal and child coverage, respectively.

Bailey Industries self-insures its short-term disability program and fully-insures its long-term disability program. The LTD program has a three-month elimination period that corresponds to the maximum possible duration of the STD program. The company provides an LTD benefit of 60% of an employee's salary at no cost to the employee. Employees may elect to "buy-up" to a benefit of 66 2/3% of salary. An employee's disability is based on an "own occupation" definition for the first two years of disability and an "any occupation" definition for the balance of the benefit period. Benefits are maintained for the length of an employee's disability, up to age 65, and are directly integrated with Primary Social Security Disability Insurance (SSDI) benefits.

**TABLE C-1
THREE YEAR FINANCIAL STATEMENT FOR WONDERFUL LIFE INSURANCE COMPANY
All Corporate Divisions Combined
(Amounts in \$1,000s)**

	1997	% of Premium *	1998	% of Premium *	1999	% of Premium *
Premium Income						
Premium	\$1,977,100		\$2,165,000		\$2,438,700	
Premium Equivalents (PEs)	\$3,503,000		\$3,927,400		\$4,348,800	
Total Premium and PEs	\$5,480,100		\$6,092,400		\$6,787,500	
Benefits and Expenses						
Incurred Claims	\$4,559,600	83.2%	\$5,096,900	83.7%	\$5,673,900	83.6%
Operating Expenses	\$829,400	15.1%	\$919,400	15.1%	\$1,025,600	15.1%
Total Benefits and Expenses	\$5,389,000	98.3%	\$6,016,300	98.8%	\$6,699,500	98.7%
Operating Margin	\$91,100	1.7%	\$76,100	1.2%	\$88,000	1.3%
Other Income						
Net Investment Income	\$166,200	3.0%	\$170,900	2.8%	\$201,100	3.0%
Other Income	\$4,600	0.1%	\$7,900	0.1%	\$5,500	0.1%
Total Other Income	\$170,800	3.1%	\$178,800	2.9%	\$206,600	3.0%
Operating Earnings Before Taxes	\$261,900	4.8%	\$254,900	4.2%	\$294,600	4.3%
Total Taxes	\$99,400	1.8%	\$96,800	1.6%	\$111,900	1.6%
Operating Earnings After Taxes	\$162,500	3.0%	\$158,100	2.6%	\$182,700	2.7%

* denominator includes both premium and premium equivalents.

TABLE C-2
1999 YEAR-END BALANCE SHEET FOR WONDERFUL LIFE INSURANCE COMPANY
(Amounts in \$1,000s)

	1999
Assets	
Cash and short-term investments	\$321,900
Receivables	\$270,900
Other assets	\$1,952,900
Fixed assets	\$136,800
Total assets	\$2,682,500
Liabilities	
Accounts payable	\$67,100
Short-term debt	\$93,900
Policy liabilities	\$1,327,900
Other liabilities	\$13,400
Long-term debt	\$48,300
Total liabilities	\$1,550,600
Shareholders' Equity	
Common stock and capital surplus	\$313,900
Retained earnings	\$807,500
Other equity	\$10,700
Total shareholders' equity	\$1,132,100
Total liabilities and shareholders' equity	\$2,682,700

**TABLE MM-1
THREE YEAR FINANCIAL STATEMENT FOR INDIVIDUAL AND GROUP MAJOR MEDICAL BUSINESS**
(Amounts in \$1,000s)

	1997	% of Premium	1998	% of Premium	1999	% of Premium
Premium Income	\$ 1,281,000		\$ 1,415,000		\$1,584,000	
Paid Claims	\$1,056,000	82.4%	\$1,118,800	79.1%	\$1,279,000	80.7%
Change in Reserves	(\$51,300)	-4.0%	\$10,200	0.7%	\$4,000	0.3%
Total Claims Expense	\$1,004,700	78.4%	\$1,129,000	79.8%	\$1,283,000	81.0%
Gross Margin	\$276,300	21.6%	\$286,000	20.2%	\$301,000	19.0%
General Administrative Expense	\$140,000	10.5%	\$144,000	10.0%	\$157,000	9.9%
Commissions	\$68,000	5.1%	\$75,000	5.2%	\$81,000	5.1%
Premium Tax	<u>\$27,000</u>	2.0%	<u>\$29,000</u>	2.0%	<u>\$32,000</u>	2.0%
Total Expense	\$235,000	18.3%	\$248,000	17.5%	\$270,000	17.0%
Operating Margin	\$41,300	3.2%	\$38,000	2.7%	\$31,000	2.0%
Investment Income	\$43,000	3.2%	\$43,000	3.0%	\$49,000	3.1%
Other Income	<u>\$1,000</u>	0.1%	<u>\$2,000</u>	0.1%	<u>\$1,000</u>	0.1%
Total Other Income	\$44,000	3.4%	\$45,000	3.5%	\$50,000	3.9%
Operating Earnings Before Taxes	\$85,300	6.7%	\$83,000	5.9%	\$81,000	5.1%
Taxes	<u>\$32,400</u>	2.5%	<u>\$31,500</u>	2.2%	<u>\$30,800</u>	1.9%
Operating Earnings After Taxes	\$52,900	4.1%	\$51,500	3.6%	\$50,200	3.2%

TABLE MM-2a
2000 RATE MANUAL FOR MAJOR MEDICAL BUSINESS

1. Base Manual Claims Rates Effective January 1, 2000

	Total Claims	Relativity
EE Only	\$150.00	1.00
EE and Dependents	\$375.00	2.50
Composite Rate per EE	\$263.00	1.75
Pooling Charge per EE (For Claims > \$50,000)	\$35.00	

2. Claims Trends

	Monthly Trend Rate*
1/98-12/98	0.8%
1/99-12/99	0.9%
1/00-12/00	1.2%

* Monthly trend rates apply to all months in the given year. Claims experience is trended from the midpoint of the experience period to the midpoint of the projection period. For example, 1/98-12/98 claims experience (midpoint of 7/98) that is trended forward to a projection period of 1/99-12/99 (midpoint of 7/99) would require 6 months of monthly 1998 trend and 6 months of monthly 1999 trend, for a total trend factor = $(1 + .008)^6 * (1 + .009)^6$.

3. Administrative Expense Scale Per EE

Total EEs	Monthly Administrative Fee per EE
< 50	\$20.00
50 - 250	\$18.00
250 - 500	\$15.00
> 500	\$12.00

4. Commission Scale

Total EEs	Commission % of Gross Premium
< 50	10.0%
50 - 250	8.0%
250 - 500	6.0%
> 500	5.0%

5. Risk / Profit Load

Total EEs	Risk/Profit Load % of Gross Premium
< 50	6.0%
50 - 250	5.0%
250 - 500	4.0%
> 500	3.0%

TABLE MM-2b
2000 RATE MANUAL FOR MAJOR MEDICAL BUSINESS

6. Credibility Factors

Total EEs	Credibility of Group Experience
< 50	0.0%
50 - 250	25.0%
250 - 500	50.0%
500 - 1000	75.0%
> 1000	100.0%

7. Region Factors

Region	Geographic Factor
Region 1	0.9
Region 2	1.0
Region 3	1.1
Region 4	1.2

8. Age and Sex Factors

Age and sex factors range from 0.7 to 2.2. Due to the large size of the complete age/sex factor table, composite factors have been supplied for sample groups in Table MM-3.

9. Benefit Factors

Plan Design	Benefit Factor
\$100 Deductible	0.85
\$250 Deductible	0.75
\$500 Deductible	0.70

Notes

- (1) Experience rates are calculated on a composite per employee basis and adjusted to an employee only and employee plus dependent structure. The standard relationship between tiers is the same as for the manual claims rates.
- (2) Retrospective Refund Calculation
 - (a) Retrospective rating method is only offered to groups with experience that is considered fully credible (more than 1000 employees).
 - (b) No interest is credited on amounts held.
 - (c) Only claims amounts up to \$50,000 are charged to the group's experience. Claim amounts over \$50,000 are pooled and charged to the group's experience at the pooling charge level.
 - (d) All expenses are according to the scales listed above.
 - (e) The first \$50,000 of any experience refund is held as a rate stabilization reserve. All balances in excess of \$50,000 are returned to the group.

**TABLE MM-3
SAMPLE OF MAJOR MEDICAL GROUP EXPERIENCE DATA**

Group	Effective Date for Renewal Rates	Annual Exposure EE Only	Annual Exposure EE + Depts	Annual Exposure Total EEs	Total Claims (1)	Amount of Claims > \$50,000	Net Claims < \$50,000	Total Premium
Group	Current Composite Rate Per EE (2)	Current Rate EE Only	Current Rate EE + Depts	Current Rating Method	Retrospective Formula Balance	Composite Age/Sex Factor (3)	Region	Benefit Plan (Deductible)
1	Jan-00	15	10	25	\$34,000	\$0	1	\$500
2	Feb-00	50	50	100	\$207,000	\$21,000	2	\$250
3	Mar-00	100	200	300	\$644,000	\$77,000	1	\$250
4	Jan-00	1,000	500	1,500	\$2,831,000	\$311,000	4	\$500
5	Feb-00	1,500	1,000	2,500	\$7,371,000	\$1,106,000	3	\$100
6	Mar-00	1,500	1,500	3,000	\$6,503,000	\$845,000	2	\$250

- (1) Experience period for all groups is July 1, 1998 through June 30, 1999.
- (2) Current rates are those effective for the twelve months prior to the effective date for each group's renewal rates.
- (3) The groups' average demographic factors are assumed to be unchanged from the experience period to the effective period of the renewal rates.

**TABLE MM-4b
PAID CLAIMS BY MONTH INCURRED
Hospital Data**

Accumulated Paid Claims (\$1,000s)

Incurred Month	Accumulated Paid Claims (\$1,000s)																		
	7/98	8/98	9/98	10/98	11/98	12/98	1/99	2/99	3/99	4/99	5/99	6/99	7/99	8/99	9/99	10/99	11/99	12/99	
1997	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500	45,500
2/97	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400	41,400
3/97	46,800	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900
4/97	46,600	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700	46,700
5/97	43,600	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700
6/97	43,400	43,400	43,400	43,400	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500
7/97	43,600	43,700	43,600	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700	43,700
8/97	41,900	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000	42,000
9/97	42,300	42,400	42,400	42,400	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500	42,500
10/97	46,500	46,600	46,700	46,700	46,800	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900	46,900
11/97	42,800	42,900	43,000	43,200	43,300	43,300	43,300	43,400	43,400	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500	43,500
12/97	47,000	47,200	47,300	47,500	47,600	47,700	47,700	47,700	47,700	47,700	47,700	47,800	47,800	47,800	47,800	47,800	47,800	47,800	47,800
1/98	46,700	47,000	47,200	47,400	47,600	47,700	47,900	48,000	48,000	48,100	48,100	48,100	48,100	48,100	48,100	48,100	48,100	48,100	48,100
2/98	42,300	43,000	43,400	43,700	43,700	43,800	43,900	44,000	44,100	44,100	44,000	44,100	44,100	44,100	44,100	44,100	44,100	44,100	44,100
3/98	46,300	46,900	47,600	47,800	48,100	48,300	48,500	48,600	48,600	48,600	48,600	48,700	48,700	48,800	48,800	48,800	48,800	48,800	48,800
4/98	44,900	46,400	47,000	47,400	47,700	47,900	48,000	48,300	48,600	48,700	48,700	48,800	48,800	48,800	48,800	48,800	48,900	48,900	48,900
5/98	39,800	43,000	44,200	45,000	45,300	45,600	45,800	46,200	46,300	46,600	46,600	46,700	46,800	46,800	46,800	46,800	46,800	46,800	46,800
6/98	32,100	41,500	44,700	46,500	47,300	48,000	48,500	48,800	49,100	49,200	49,300	49,400	49,500	49,500	49,500	49,500	49,500	49,500	49,500
7/98	6,900	30,600	40,900	45,700	47,300	48,500	49,200	49,500	50,100	50,200	50,300	50,400	50,400	50,400	50,500	50,600	50,700	50,700	50,700
8/98	0	4,600	28,400	40,300	43,600	45,700	46,500	47,200	47,600	47,900	48,000	48,100	48,200	48,200	48,300	48,300	48,300	48,300	48,500
9/98	0	0	3,400	31,200	40,200	44,500	46,400	47,500	48,100	48,500	49,000	49,100	49,200	49,300	49,300	49,300	49,400	49,400	49,500
10/98	0	0	0	6,300	30,900	42,500	46,300	48,300	49,700	51,000	51,200	51,400	51,500	51,800	51,900	52,000	52,100	52,200	52,200
11/98	0	0	0	0	4,200	31,900	40,800	48,300	49,000	48,500	49,100	49,100	49,400	49,700	49,800	50,000	50,100	50,200	50,200
12/98	0	0	0	0	0	7,900	34,600	43,800	46,600	50,900	51,900	52,600	53,000	53,300	53,600	54,000	54,200	54,300	54,300
1/99	0	0	0	0	0	0	4,600	29,400	39,800	48,000	45,300	49,200	49,900	50,400	50,600	51,000	51,100	51,200	51,200
2/99	0	0	0	0	0	0	0	3,900	28,900	48,000	45,300	49,200	49,900	50,400	50,600	51,000	51,100	51,200	51,200
3/99	0	0	0	0	0	0	0	0	4,700	37,500	46,600	51,000	53,800	55,100	56,500	57,200	57,400	57,600	57,600
4/99	0	0	0	0	0	0	0	0	0	7,200	46,600	51,000	53,800	55,100	56,500	57,200	57,400	57,600	57,600
5/99	0	0	0	0	0	0	0	0	0	0	5,300	30,700	48,900	49,000	49,000	49,000	49,000	49,000	49,000
6/99	0	0	0	0	0	0	0	0	0	0	0	3,600	34,500	45,000	46,900	49,000	49,000	49,000	49,000
7/99	0	0	0	0	0	0	0	0	0	0	0	0	6,700	46,200	49,000	52,400	53,300	54,800	54,800
8/99	0	0	0	0	0	0	0	0	0	0	0	0	0	5,400	46,200	52,000	53,300	54,800	54,800
9/99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,400	38,700	48,400	53,300	53,300
10/99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,200	48,400	53,300	53,300
11/99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,100	49,300	49,300
12/99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,100	8,100

**TABLE MM-4d
PAID CLAIMS BY MONTH INCURRED
Non-Hospital Data (includes physician and other professional services and prescription drugs)**

Accumulated Paid Claims (\$1,000s)

<i>Incurring Month</i>	<i>Accumulated Paid Claims (\$1,000s)</i>																		
	7/98	8/98	9/98	10/98	11/98	12/98	1/99	2/99	3/99	4/99	5/99	6/99	7/99	8/99	9/99	10/99	11/99	12/99	
1/97	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000	37,000
2/97	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100	35,100
3/97	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500
4/97	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900
5/97	38,800	38,800	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900
6/97	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300
7/97	39,800	39,800	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900
8/97	37,900	38,000	38,000	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100	38,100
9/97	38,600	38,700	38,700	38,800	38,800	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900	38,900
10/97	41,900	41,900	42,000	42,100	42,100	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200	42,200
11/97	37,900	38,000	38,100	38,200	38,200	38,300	38,300	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400	38,400
12/97	44,800	44,900	45,000	45,100	45,200	45,300	45,300	45,300	45,400	45,400	45,400	45,400	45,400	45,400	45,400	45,400	45,400	45,400	45,400
1/98	40,300	40,600	40,700	40,900	41,100	41,200	41,300	41,400	41,500	41,600	41,600	41,600	41,600	41,600	41,600	41,600	41,600	41,600	41,600
2/98	37,900	38,400	38,600	38,800	38,900	38,900	39,000	39,100	39,200	39,200	39,300	39,300	39,300	39,300	39,300	39,300	39,300	39,300	39,300
3/98	40,800	41,300	41,600	41,900	42,000	42,200	42,300	42,400	42,500	42,600	42,700	42,700	42,700	42,700	42,700	42,700	42,700	42,700	42,700
4/98	40,900	41,800	42,400	42,800	43,000	43,200	43,500	43,600	43,700	43,800	43,900	44,000	44,000	44,000	44,000	44,000	44,000	44,000	44,000
5/98	36,800	38,700	39,700	40,300	40,500	40,800	41,000	41,200	41,300	41,400	41,500	41,600	41,600	41,600	41,600	41,700	41,700	41,700	41,700
6/98	33,500	39,200	41,100	42,200	42,700	43,100	43,500	43,700	43,900	44,000	44,100	44,200	44,300	44,300	44,300	44,400	44,400	44,400	44,400
7/98	11,800	31,900	38,500	41,100	42,100	42,800	43,200	43,700	43,900	44,100	44,200	44,300	44,300	44,400	44,400	44,500	44,500	44,500	44,500
8/98	0	10,000	30,600	38,300	40,300	41,600	42,200	42,700	43,100	43,500	43,600	43,700	43,800	43,900	43,900	44,000	44,000	44,000	44,000
9/98	0	0	8,800	33,300	38,700	41,200	42,400	43,100	43,800	44,200	44,400	44,500	44,700	44,800	44,800	44,900	44,900	44,900	44,900
10/98	0	0	0	12,600	33,500	40,900	42,400	44,800	45,600	46,300	46,600	46,800	47,000	47,100	47,200	47,300	47,300	47,300	47,400
11/98	0	0	0	0	9,800	40,900	43,400	44,800	45,600	46,300	46,600	46,800	47,000	47,100	47,200	47,300	47,300	47,300	47,300
12/98	0	0	0	0	0	15,700	38,000	45,700	48,500	50,200	50,900	51,300	51,700	51,900	52,000	52,200	52,300	52,300	52,300
1/99	0	0	0	0	0	0	8,700	28,900	35,800	39,000	40,500	41,200	41,800	42,200	42,500	42,800	42,900	43,100	43,100
2/99	0	0	0	0	0	0	0	9,100	29,700	37,900	40,200	41,300	42,200	42,700	43,100	43,500	43,600	43,800	43,800
3/99	0	0	0	0	0	0	0	0	10,200	37,500	43,900	46,200	47,700	48,600	49,200	49,700	49,900	50,100	50,100
4/99	0	0	0	0	0	0	0	0	13,600	43,900	40,200	43,900	46,200	47,700	48,600	49,200	49,700	49,900	50,100
5/99	0	0	0	0	0	0	0	0	0	11,500	35,600	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
6/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
7/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
8/99	0	0	0	0	0	0	0	0	0	11,500	35,600	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
9/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
10/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
11/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300
12/99	0	0	0	0	0	0	0	0	0	10,900	33,000	42,100	45,000	46,300	47,000	47,700	48,000	48,300	48,300

**TABLE MM-5a
HOSPITAL PAID CLAIMS STATISTICS**

<u>Month Paid</u>	<u>Total Claims Paid (\$1,000s)</u>	<u>Member Exposure</u>	<u>Number of Claims Received</u>	<u>Number of Claims Paid</u>	<u>Month-end Unpaid Claims Inventory</u>	<u>Average Amount Paid Per Claim</u>	<u>Average Days to Process *</u>
1/97	\$51,200	930,000	160,000	160,000	30,000	\$320	2.8
2/97	\$43,200	943,000	140,000	139,000	31,000	\$311	3.0
3/97	\$46,500	944,000	159,000	160,000	30,000	\$291	3.2
4/97	\$46,100	945,000	143,000	142,000	31,000	\$325	2.9
5/97	\$55,500	944,000	165,000	168,000	28,000	\$330	3.0
6/97	\$46,500	944,000	148,000	145,000	31,000	\$321	2.8
7/97	\$42,700	943,000	140,000	142,000	29,000	\$301	2.7
8/97	\$52,800	939,000	192,000	189,000	32,000	\$279	2.9
9/97	\$40,200	934,000	128,000	130,000	30,000	\$309	2.7
10/97	\$54,000	933,000	198,000	200,000	28,000	\$270	2.8
11/97	\$42,100	936,000	139,000	136,000	31,000	\$310	3.1
12/97	\$43,500	937,000	148,000	150,000	29,000	\$290	3.2
1/98	\$51,600	937,000	178,000	181,000	26,000	\$285	2.8
2/98	\$43,100	940,000	151,000	153,000	24,000	\$282	2.6
3/98	\$46,200	942,000	166,000	165,000	25,000	\$280	2.4
4/98	\$44,000	942,000	145,000	144,000	26,000	\$306	2.3
5/98	\$55,700	940,000	206,000	207,000	25,000	\$269	2.5
6/98	\$43,800	939,000	135,000	137,000	23,000	\$320	2.6
7/98	\$58,300	943,000	181,000	180,000	24,000	\$324	2.4
8/98	\$45,000	939,000	162,000	161,000	25,000	\$280	2.3
9/98	\$44,000	937,000	146,000	147,000	24,000	\$299	2.2
10/98	\$55,000	945,000	179,000	178,000	25,000	\$309	2.5
11/98	\$45,100	945,000	141,000	140,000	26,000	\$322	2.4
12/98	\$56,600	945,000	189,000	190,000	25,000	\$298	2.5
1/99	\$48,700	945,000	168,000	169,000	24,000	\$288	2.6
2/99	\$46,700	966,000	174,000	173,000	25,000	\$270	2.4
3/99	\$50,400	964,000	182,000	181,000	26,000	\$278	2.3
4/99	\$64,900	968,000	210,000	211,000	25,000	\$308	2.5
5/99	\$49,400	967,000	152,000	153,000	24,000	\$323	2.4
6/99	\$49,500	968,000	172,000	170,000	26,000	\$291	2.6
7/99	\$60,900	969,000	195,000	196,000	25,000	\$311	2.3
8/99	\$53,800	974,000	192,000	193,000	24,000	\$279	2.1
9/99	\$53,100	974,000	154,000	155,000	23,000	\$343	2.0
10/99	\$72,100	976,000	217,000	218,000	22,000	\$331	2.2
11/99	\$51,400	980,000	163,000	164,000	21,000	\$313	2.4
12/99	\$68,500	979,000	232,000	234,000	19,000	\$293	2.3

* Includes non-investigated claims only.

**TABLE MM-5b
NON-HOSPITAL PAID CLAIMS STATISTICS**

<u>Month Paid</u>	<u>Total Claims Paid (\$1,000s)</u>	<u>Member Exposure</u>	<u>Number of Claims Received</u>	<u>Number of Claims Paid</u>	<u>Month-end Unpaid Claims Inventory</u>	<u>Average Amount Paid Per Claim</u>	<u>Average Days to Process *</u>
1/97	\$43,100	930,000	1,000,000	1,002,000	148,000	\$43	3.0
2/97	\$35,600	943,000	792,000	791,000	149,000	\$45	3.1
3/97	\$39,000	944,000	932,000	929,000	152,000	\$42	2.9
4/97	\$40,400	945,000	1,035,000	1,036,000	151,000	\$39	3.2
5/97	\$47,300	944,000	1,280,000	1,278,000	153,000	\$37	2.8
6/97	\$38,900	944,000	1,109,000	1,111,000	151,000	\$35	2.9
7/97	\$37,900	943,000	947,000	948,000	150,000	\$40	2.7
8/97	\$45,300	939,000	1,080,000	1,079,000	151,000	\$42	2.4
9/97	\$35,500	934,000	933,000	934,000	150,000	\$38	2.9
10/97	\$47,400	933,000	1,157,000	1,156,000	151,000	\$41	2.6
11/97	\$38,500	936,000	1,042,000	1,041,000	152,000	\$37	2.8
12/97	\$42,700	937,000	1,183,000	1,186,000	149,000	\$36	2.7
1/98	\$46,100	937,000	1,260,000	1,271,000	138,000	\$36	2.4
2/98	\$39,800	940,000	955,000	964,000	129,000	\$41	2.6
3/98	\$40,700	942,000	905,000	916,000	118,000	\$44	2.5
4/98	\$42,400	942,000	1,088,000	1,087,000	119,000	\$39	2.3
5/98	\$47,400	940,000	1,365,000	1,363,000	121,000	\$35	2.4
6/98	\$40,900	939,000	1,017,000	1,020,000	118,000	\$40	2.6
7/98	\$48,100	943,000	1,170,000	1,168,000	120,000	\$41	2.7
8/98	\$40,300	939,000	1,091,000	1,092,000	119,000	\$37	2.4
9/98	\$40,600	937,000	1,043,000	1,041,000	121,000	\$39	2.3
10/98	\$50,700	945,000	1,208,000	1,207,000	122,000	\$42	2.6
11/98	\$40,500	945,000	905,000	907,000	120,000	\$45	2.4
12/98	\$52,900	945,000	1,227,000	1,226,000	121,000	\$43	2.5
1/99	\$43,100	945,000	1,144,000	1,142,000	123,000	\$38	2.6
2/99	\$43,600	966,000	1,091,000	1,093,000	121,000	\$40	2.4
3/99	\$44,800	964,000	1,198,000	1,200,000	119,000	\$37	2.7
4/99	\$57,200	968,000	1,471,000	1,469,000	121,000	\$39	2.3
5/99	\$45,900	967,000	1,148,000	1,150,000	119,000	\$40	2.5
6/99	\$44,600	968,000	1,072,000	1,069,000	122,000	\$42	2.4
7/99	\$54,500	969,000	1,252,000	1,256,000	118,000	\$43	2.3
8/99	\$48,900	974,000	1,150,000	1,156,000	112,000	\$42	2.2
9/99	\$50,200	974,000	1,230,000	1,233,000	109,000	\$41	2.0
10/99	\$62,300	976,000	1,595,000	1,600,000	104,000	\$39	2.1
11/99	\$49,700	980,000	1,190,000	1,195,000	99,000	\$42	2.3
12/99	\$64,800	979,000	1,475,000	1,479,000	95,000	\$44	2.2

* Includes non-investigated claims only.

**TABLE MM-6a
INCURRED BUT NOT REPORTED MODEL OUTPUT - HOSPITAL CLAIMS**

Summary of Hospital Claims 6-month Average Factors									
Month	Claims Paid (in \$1,000s)	Incurred & Paid (in \$1,000s)	Completion Factors	Incurred Estimate (in \$1,000s)	PMPM Estimate	IBNR Estimate (in \$1,000s)	Members (in 1,000s)		
1/97		\$45,500	1.0000	\$45,500	\$48.92	\$0	930		
2/97		\$41,400	1.0000	\$41,400	\$43.90	\$0	943		
3/97		\$46,900	1.0000	\$46,900	\$49.68	\$0	944		
4/97		\$46,700	1.0000	\$46,700	\$49.42	\$0	945		
5/97		\$43,700	1.0000	\$43,700	\$46.29	\$0	944		
6/97		\$43,500	1.0000	\$43,500	\$46.08	\$0	944		
7/97		\$43,700	1.0000	\$43,700	\$46.34	\$0	943		
8/97		\$42,000	1.0000	\$42,000	\$44.73	\$0	939		
9/97		\$42,500	1.0000	\$42,500	\$45.50	\$0	934		
10/97		\$46,900	1.0000	\$46,900	\$50.27	\$0	933		
11/97		\$43,500	1.0000	\$43,500	\$46.47	\$0	936		
12/97		\$47,800	1.0000	\$47,800	\$51.01	\$0	937		
1/98	\$51,600	\$48,100	1.0000	\$48,100	\$51.33	\$0	937		
2/98	\$43,100	\$44,100	1.0000	\$44,100	\$46.91	\$0	940		
3/98	\$46,200	\$48,800	1.0000	\$48,800	\$51.80	\$0	942		
4/98	\$44,000	\$48,900	1.0000	\$48,900	\$51.91	\$0	942		
5/98	\$55,700	\$46,800	1.0000	\$46,800	\$49.79	\$0	940		
6/98	\$43,800	\$49,500	1.0000	\$49,500	\$52.72	\$0	939		
7/98	\$58,300	\$50,700	1.0000	\$50,700	\$53.76	\$0	943		
8/98	\$45,000	\$48,500	0.9993	\$48,533	\$51.69	\$33	939		
9/98	\$44,000	\$49,500	0.9990	\$49,550	\$52.88	\$50	937		
10/98	\$55,000	\$52,200	0.9976	\$52,324	\$55.37	\$124	945		
11/98	\$45,100	\$50,200	0.9966	\$50,370	\$53.30	\$170	945		
12/98	\$56,600	\$54,300	0.9950	\$54,575	\$57.75	\$275	945		
1/99	\$48,700	\$51,200	0.9937	\$51,526	\$54.52	\$326	945		
2/99	\$46,700	\$49,700	0.9911	\$50,147	\$51.91	\$447	966		
3/99	\$50,400	\$57,600	0.9879	\$58,305	\$60.48	\$705	964		
4/99	\$64,900	\$54,100	0.9828	\$55,046	\$56.87	\$946	968		
5/99	\$49,400	\$52,400	0.9771	\$53,628	\$55.46	\$1,228	967		
6/99	\$49,500	\$54,800	0.9682	\$56,601	\$58.47	\$1,801	968		
7/99	\$60,900	\$55,000	0.9494	\$57,934	\$59.79	\$2,934	969		
8/99	\$53,800	\$55,100	0.9270	\$59,439	\$61.03	\$4,339	974		
9/99	\$53,100	\$53,300	0.8830	\$60,365	\$61.98	\$7,065	974		
10/99	\$72,100	\$49,300	0.8022	\$61,457	\$62.97	\$12,157	976		
11/99	\$51,400	\$39,200	0.5934	\$66,057	\$67.41	\$26,857	980		
12/99	\$68,500	\$8,100	0.0759	\$106,725	\$109.01	\$98,625	979		
						\$158,085			

**TABLE MM-6b
INCURRED BUT NOT REPORTED MODEL OUTPUT - NON-HOSPITAL CLAIMS**

Summary of Non-Hospital Claims									
6-month Average Factors									
Month	Claims Paid (in \$1,000s)	Incurred & Paid (in \$1,000s)	Completion Factors	Incurred Estimate (in \$1,000s)	PMPM Estimate	IBNR Estimate (in \$1,000s)	Members (in 1,000s)		
1/97	\$37,000	\$37,000	1.0000	\$37,000	\$39.78	\$0	930		
2/97	\$35,100	\$35,100	1.0000	\$35,100	\$37.22	\$0	943		
3/97	\$38,500	\$38,500	1.0000	\$38,500	\$40.78	\$0	944		
4/97	\$39,900	\$39,900	1.0000	\$39,900	\$42.22	\$0	945		
5/97	\$38,900	\$38,900	1.0000	\$38,900	\$41.21	\$0	944		
6/97	\$38,300	\$38,300	1.0000	\$38,300	\$40.57	\$0	944		
7/97	\$39,900	\$39,900	1.0000	\$39,900	\$42.31	\$0	943		
8/97	\$38,100	\$38,100	1.0000	\$38,100	\$40.58	\$0	939		
9/97	\$38,900	\$38,900	1.0000	\$38,900	\$41.65	\$0	934		
10/97	\$42,200	\$42,200	1.0000	\$42,200	\$45.23	\$0	933		
11/97	\$38,400	\$38,400	1.0000	\$38,400	\$41.03	\$0	936		
12/97	\$45,400	\$45,400	1.0000	\$45,400	\$48.45	\$0	937		
1/98	\$41,600	\$41,600	1.0000	\$41,600	\$44.40	\$0	937		
2/98	\$39,800	\$39,300	1.0000	\$39,300	\$41.81	\$0	940		
3/98	\$40,700	\$42,700	1.0000	\$42,700	\$45.33	\$0	942		
4/98	\$42,400	\$44,000	1.0000	\$44,000	\$46.71	\$0	942		
5/98	\$47,400	\$41,700	1.0000	\$41,700	\$44.36	\$0	940		
6/98	\$40,900	\$44,400	1.0000	\$44,400	\$47.28	\$0	939		
7/98	\$48,100	\$44,500	1.0000	\$44,500	\$47.19	\$0	943		
8/98	\$40,300	\$44,000	0.9996	\$44,018	\$46.88	\$18	939		
9/98	\$40,600	\$44,900	0.9992	\$44,935	\$47.96	\$35	937		
10/98	\$50,700	\$47,400	0.9988	\$47,455	\$50.22	\$55	945		
11/98	\$40,500	\$46,200	0.9981	\$46,287	\$48.98	\$87	945		
12/98	\$52,900	\$52,300	0.9966	\$52,477	\$55.53	\$177	945		
1/99	\$43,100	\$43,100	0.9955	\$43,293	\$45.81	\$193	945		
2/99	\$43,600	\$43,800	0.9934	\$44,093	\$45.64	\$293	966		
3/99	\$44,800	\$50,100	0.9898	\$50,618	\$52.51	\$518	964		
4/99	\$57,200	\$48,300	0.9862	\$48,976	\$50.60	\$676	968		
5/99	\$45,900	\$45,900	0.9801	\$46,831	\$48.43	\$931	967		
6/99	\$44,600	\$48,900	0.9717	\$50,324	\$51.99	\$1,424	968		
7/99	\$54,500	\$49,300	0.9594	\$51,387	\$53.03	\$2,087	969		
8/99	\$48,900	\$51,600	0.9428	\$54,728	\$56.19	\$3,128	974		
9/99	\$50,200	\$49,800	0.9145	\$54,458	\$55.91	\$4,658	974		
10/99	\$62,300	\$48,400	0.8623	\$66,128	\$57.51	\$7,728	976		
11/99	\$49,700	\$44,100	0.7230	\$60,999	\$62.24	\$16,899	980		
12/99	\$64,800	\$18,200	0.2278	\$79,912	\$81.63	\$61,712	979		
						<u>\$100,619</u>			

**TABLE BI-1a
TARGET CLIENT: BAILEY INDUSTRIES**

General Information

White-collar industry
 Approximately 1,500 full-time employees
 Located primarily in single city (Region 2)
 Average 1999 salary = \$43,365
 Average years of service = 8.00
 Average age/sex factor = 1.05

Age Band	1999 Payroll Distribution	
	M	F
<20	\$277,500	\$135,000
20-24	\$2,062,500	\$1,102,500
25-29	\$3,412,500	\$2,763,750
30-34	\$5,418,750	\$3,990,000
35-39	\$6,412,500	\$5,100,000
40-44	\$7,755,000	\$3,465,000
45-49	\$7,125,000	\$3,562,500
50-54	\$5,850,000	\$1,687,500
55-59	\$3,375,000	\$570,000
60-64	\$1,200,000	\$0
65+	\$0	\$0
Total	\$42,888,750	\$22,376,250

Age Band	Employee Only		Employee Plus Spouse		Employee Plus Child(ren)		Employee Plus Family		Total	
	M	F	M	F	M	F	M	F	M	F
<20	15	8	-	-	-	-	-	-	15	8
20-24	67	34	13	5	3	6	-	-	83	45
25-29	51	46	27	21	6	9	14	7	98	83
30-34	39	29	32	22	7	9	50	45	128	105
35-39	33	25	31	24	7	10	72	69	143	128
40-44	28	13	31	23	6	9	100	38	165	83
45-49	24	13	30	22	6	8	83	32	143	75
50-54	13	5	19	8	5	8	53	17	90	38
55-59	3	3	17	9	2	3	23	-	45	15
60-64	2	-	5	-	1	-	7	-	15	-
65+	-	-	-	-	-	-	-	-	-	-
Total	275	176	205	134	43	62	402	208	925	580

**TABLE BI-1b
TARGET CLIENT: BAILEY INDUSTRIES**

Current Benefit Plans

1. Medical

	Employee Election Percentage	Employee Distribution by Tier
(A) PPO \$250 deductible in-network or out-of-network 80% coinsurance in-network 60% coinsurance out-of-network	58.5%	EE 30.0% EE+Dep(s) 70.0%
(B) HMO \$10 office visit copay 100% coinsurance	27.0%	EE 35.0% EE+Dep(s) 65.0%
(C) Catastrophic plan \$2,000 deductible 100% coinsurance	4.5%	EE 45.0% EE+Dep(s) 55.0%
(D) Opt-out of medical coverage	10.0%	EE 10.0% EE+Dep(s) 90.0%

2. Dental

No employer sponsored dental program.

3. Life Insurance

Employer paid 1 times salary.
Employees can "buy up" to 1.5, 2.0, 2.5, or 3.0 times salary by contributing the difference in the cost of the higher coverage and the employer paid option.
Employee-pay-all option of spousal life insurance for flat \$10,000.
Employee-pay-all option of child life insurance for flat \$5,000.

4. Disability

Employer self-insured STD program.
Fully insured LTD program.
3 month (90 day) elimination period for LTD.
Non-contributory option of 60% of earnings for disability up to age 65.
Employee can "buy up" to 66 2/3% of earnings by contributing the difference in the cost of the higher coverage and the employer paid option.
"Own occupation" definition of disability for first two years.
"Any occupation" definition of disability after first two years.
LTD benefits are directly integrated with Primary Social Security Disability Insurance (SSDI) benefits.