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DISCUSSION OF PAPERS PRESENTED AT
THE SPRING MEETINGS

SURGICAL AND MEDICAL INSURANCE
BY A BLUE SHIELD PLAN

ARTHUR HUNTER AND JAMES F. COLEMAN

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ARTHUR G. WEAVER:

Twenty years ago, health insurance was a virtually unexplored field. Today over 100,000,000 Americans are covered by one or more forms of such insurance, including approximately 80,000,000 for surgical benefits. This development is a spectacular achievement on the part of private enterprise and reflects the keen competition which has existed between various agencies in the insurance industry, including Blue Cross-Blue Shield. This competition has resulted in liberalization of benefits, reduction of premiums and improvement in administrative methods, with the ultimate beneficiary being the American public.

In the excellent paper under discussion, Dr. Hunter and Mr. Coleman describe the operation of United Medical Services, Inc., largest of the Blue Shield Plans. The authors have pioneered in the application of actuarial principles and techniques to such plans, and the statistics they present are of particular value for this reason alone. It would not be unreasonable to expect that eventually many Blue Shield Plans will recognize the need for actuarial help and guidance.

U.M.S. provides prepaid surgical and medical benefits through 17,000 participating doctors in the Greater New York metropolitan area. In effect the doctors are the insurers and underwrite any operating losses in the form of arbitrarily reduced fee allowances. Such action has been necessary under some Blue Cross Plans; it would be interesting to know if the right has ever been exercised by U.M.S. In any event the participating doctor has a financial interest in discouraging overutilization of the Plan. This factor is of real importance where over half the subscribers to the Plan qualify for full payment of surgical fees.

U.M.S. has been successful in avoiding frequent major revisions in the fee schedule. According to our information, the schedule was increased approximately 18% in 1945 and approximately 19% again on October 1,

1950. The 40% increase since 1945 compares with a 51% increase in the cost-of-living index (revised series). This suggests that, as regards patients entitled to full payment benefits, participating New York doctors are accepting relatively less fee-for-service today than at the end of World War II.

We have been impressed with the similarity in many respects between U.M.S. and an insurance company writing Group Surgical Expense insurance.

1. Both reimburse doctors on a fee-for-service basis in accordance with fee schedules.

2. Both offer a variety of surgical and medical plans, designed to fit the varying needs of individual groups. In their 1953 Annual Report, U.M.S. indicated they were offering large groups increased surgical and maternity fee schedules in multiples of 20%; increased medical fee schedules in multiples of 25%; and fee schedules for anesthesiology, X-ray and pathology services.

3. U.M.S. restricts its coverages to employed groups of Blue Cross plan subscribers, including dependents. Insurance companies normally require employees and dependents to be insured with them for hospital expense or other allied coverage.

4. Historically, insurance companies have used experience rating on group contracts. U.M.S. now uses experience rating, at least for large groups.

5. Both use approximately the same policy exclusions.

6. Both use waiting periods for obstetrical care unless waived in accordance with their underwriting rules. U.M.S., however, requires waiting periods for tonsils and adenoids (6 months) and for any pre-existing condition (11 months).

7. Many insurance companies as well as U.M.S. permit terminating employees to convert their group coverage to individual contracts without evidence of insurability.

8. Both permit "free choice of doctor." Approximately one-fifth of U.M.S. payments go to nonparticipating doctors.

9. U.M.S. set up claim reserves of \$6,445,000 in their 1953 Annual Report on about 30% of incurred claims. Insurance companies establish claim reserves of comparable size. These claims reserve are for unreported claims, deferred maternity benefits and claims in course of payment.

10. The U.M.S. Financial Statement provides for such familiar items as total admitted assets, unearned premium reserve, special contingency reserves, investment reserves and unassigned surplus.

Since they operate along comparable lines, it is reasonable to expect

comparable claim experience for U.M.S. and for Group Surgical Expense insurance policies issued in New York by insurance companies. Unfortunately this point cannot be tested directly since group morbidity statistics prepared by the Society of Actuaries are not subdivided by geographical area. However, if we can assume the distribution of employees by marital status to be the same nationally as in U.M.S. groups, we can demonstrate that 1952 claim costs, after adjustment for differing fee schedules, are the same within five to ten percent.

This small difference can readily be explained:

1. U.M.S. coverage of groups involving as few as four lives. There may be considerable antiselection in such small groups, although it is probably minimized by the large proportion of such groups insured with U.M.S.

2. Differences in age, sex, racial and geographical composition of U.M.S. and insurance company groups.

3. Differences in coverage—*e.g.*, savings to U.M.S. by using waiting periods for tonsils, adenoids and pre-existing conditions.

4. Differences in underwriting techniques. Insurance companies select individual groups and use premium rates graded by percentage of insurance on female employees. U.M.S. underwrites for a representative cross section of the insuring population, and has no variation in charge by sex on at least Group Remittance, Group Conversion and non-Group contracts.

Both U.M.S. and insurance companies have experienced rising claim costs. Society of Actuaries' statistics show Group Surgical Expense claims on the \$150 schedule have increased 21% (employees) and 12% (dependents) between 1947 and 1952. U.M.S. statistics by amount are distorted by the October 1, 1950 change in fee schedule. However, the number of surgical claims per 1,000 member months increased 12% between 1950 and 1953.

The authors suggest that a partial explanation may lie in an increase in claim frequency as members become better acquainted with the full scope of their coverage. While this is undoubtedly true, one would expect that any increase from this factor would be closely correlated with the proportion of new to total enrollment. Also, as pre-existing surgical conditions are remedied, it would be reasonable to hope that future claim frequencies might stabilize or even decrease. Other important factors include the increasing average age of the population and the development of elaborate surgical techniques for cancer and other conditions. These factors may explain why the average amount paid per claimant tends to increase despite the rapid growth in minor office surgery.

Neither Blue Shield nor insurance company surgical plans have been tested by a severe economic depression. In the event of marked unemployment, company plans would appear to have considerable protection in the degree of coinsurance by the patient implicit in their underwriting rules. Under the U.M.S. Plan with "full payment" benefits for low-income groups, a period of unemployment might be a convenient time to clear up certain surgical conditions.

(AUTHORS' REVIEW OF DISCUSSION)

JAMES F. COLEMAN:

We thank Mr. Weaver for his very excellent addition to the paper. As to his inquiry, UMS has not thus far had to exercise the contractual privilege by which the participating physicians would be required to accept less than 100% of the surgical and medical schedules because of temporary operating losses.

Since 1950, it has no longer been an underwriting requirement of UMS that employed groups also have Blue Cross coverage, although in practice it naturally follows that the group will have both. There are a few groups in UMS with Blue Shield but no Blue Cross coverage.

UMS waives the normally required waiting period for tonsils and adenoids (six months) and for pre-existing conditions (eleven months) under rather liberal underwriting rules for groups of 25 or more.

The experience by age groups during 1952 on Group Conversions is given in the table on page 522. The index shown for each age group reflects the ratio of morbidity in that age group to the average for all ages in Group Remittance.

Comparison of this experience with Table 11 in the paper indicates that, except in the case of single contracts, female, there is relatively less antiselection at ages 60 and over than there is at ages under 60 with respect both to surgical claims and to medical claims in hospital.

GROUP CONVERSION—1952

	AGE GROUP						Total All Ages
	Under 30	30 to 39	40 to 49	50 to 59	60 to 64	65 and over	
Relative Claim Costs by Age Group (Total for Group Remittance, all ages combined, taken as 100)							
<i>Surgical Claims:</i>							
Single Contract							
Male.....	117	74	106	153	183	235	127
Female.....	122	143	206	207	227	274	172
Two Person Contract							
Male.....	109	120	98	116	150	131	123
Female.....	151	192	139	108	89	100	118
Family Contract							
Male.....	111	122	144	199	*	*	132
Female.....	101	148	186	104	*	*	136
<i>Medical Claims in Hos- pital:</i>							
Single Contract							
Male.....	47	47	95	236	304	406	126
Female.....	92	112	176	384	482	835	229
Two Person Contract							
Male.....	27	91	106	93	139	120	108
Female.....	118	123	120	144	142	175	140
Family Contract							
Male.....	70	99	221	300	*	*	147
Female.....	82	122	164	423	*	*	127
Percentage Distribution of "In Force" by Age Group							
Single Contract							
Male.....	41.0%	18.7%	12.1%	12.6%	5.7%	9.9%	100.0%
Female.....	32.8	19.1	19.1	16.5	7.1	5.4	100.0
Two Person Contract							
Male.....	2.4	3.9	15.0	36.3	17.9	24.5	100.0
Female.....	3.4	6.0	24.5	39.0	14.1	13.0	100.0
Family Contract							
Male.....	22.3	41.1	27.3	8.0	1.0	.3	100.0
Female.....	36.7	38.3	20.5	3.8	.6	.1	100.0

* Incomplete Data.