

# RECORD OF SOCIETY OF ACTUARIES 1979 VOL. 5 NO. 3

## GROUP LONG TERM DISABILITY

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1. What are the trends in plan design regarding:
  - a. Offsets
  - b. ADEA
  - c. Indexing
  - d. Cost Sharing
  - e. Taxable or not
  
2. Funding
  - a. What changes are evident in the growth of:
    - (i) Fully-pooled insurance
    - (ii) Experience rated insurance
    - (iii) ASO
    - (iv) Self-insurance
  
  - b. Is stop-loss coverage available?
  
3. Underwriting trends in the handling of:
  - a. Industrial class occupations
  - b. Pre-existing conditions
  - c. Mental and nervous conditions
  - d. Alcohol and drugs
  
4. EXPERIENCE AND RESERVES
  - a. Are current economic conditions affecting:
    - (i) Claim rates
    - (ii) Recovery rates
  
  - b. Is the 1964 Commissioner Disability Table adequate?
  
  - c. Are the Society's Inter-Company Reports useful?
  
  - d. What techniques are used for crediting interest?
  
  - e. What percentage of claimants qualify for offsetting government benefits?

MR. PAUL W. ANDERSON: In the United States, the extensive coverage of Social Security and the frequent provision for other employment related disability plans, such as Workers' Compensation, requires a majority of group LTD plans to be integrated with other benefits.

There are two common variations in offsetting for Social Security. Plans may integrate for full Social Security including family benefits or integrate the primary insurance amount only. To determine the proper benefit level for each of these methods, the percent of after tax income replaced by the disability benefit should be considered. Any percent of after tax income approaching 100 will lead to over insurance.

In a recent study performed by Minnesota Mutual, the percent of net after tax earnings replaced by an LTD plan providing disability benefits equal to 60% of the gross income was calculated for a family of three. Both Federal and Minnesota state income taxes were considered in the calculation. The results of the calculation were as follows:

<u>Annual Income</u>	<u>% of After Tax Income Replaced By Disability</u>	
	<u>Primary Offset</u>	<u>Full Offset</u>
\$10,000	98%	66%
20,000	93	74
30,000	94	75

This implies that the benefit percent for a primary offset plan should be significantly less than 60%.

Over 50% of the plans insured by our Company offset for full Social Security benefits and the trend seems to be in this direction. However, many employers feel that family status should not be considered in the level of disability benefit payable under their group plan.

There seems to be little interest in the United States for indexing Group LTD benefits to preserve their purchasing power. The main reason is the cost implications. Most plans which do index benefits place a cap or the increase for any one year with a normal cap being around 3%.

The 1976 Federal Income Tax Reform Act removed the tax exemption on employer paid disability income benefits for disabled employees with a taxable income greater than \$20,200. In order to decrease the impact this act has on higher salaried employees, there has been a trend towards higher maximum benefits on LTD plans and an increase in the number of cost sharing plans.

However, caution should be used in determining future trends in the overall plan design of LTD policies. Current trends will need to be reevaluated in light of recent regulatory action. Over the past year, there have been several legislative changes of significance to employer provided benefit plans. Each of these enactments have had important implications in the plan design and cost of group LTD products.

In 1978 the Civil Rights Act was amended to prohibit discrimination with respect to pregnancy. Basically, this eliminated the standard pregnancy exclusion on employer provided LTD plans. The additional cost of this benefit is dependent upon the percent of female content, average age of females and elimination period of the group.

There have also been changes in the Social Security disability program. Since the beginning of this program in 1954, Social Security benefits have covered an ever growing percentage of current income. The 1977 amendments,

effective January 1, 1979, reversed this trend and have had a major effect upon LTD plans offset with Social Security. The amendments decreased the level of disability benefits across the board and equalized benefits by age. The total reduction averages around 25% to 30% for workers under age 30. The reduction in benefits decreases by age reaching 5% to 7% for workers over age 50.

The decrease in Social Security benefits increases the portion of the disability benefit covered by an offset plan. The increase in coverage will vary according to the offset form, elimination period and age make up of the group. On plans my company has reviewed, the covered benefits have increased on the average of 15% to 100%. This increased risk must be compensated for by higher cost to the employer.

How will the employer react to these legislative cost increases? There are several alternatives. The cost increases may show up in increased employee contributions, a decrease in the level of benefits or an increase in the employer's production cost. Certainly this decision may lead to differing trends in the design of group LTD plans.

Recent statistics released by the HIAA indicate that the number of employees covered under insured group LTD policies has decreased since 1975. The major reason is the growth in ASO and self-insured plans. This growth is predicated on the savings in plan cost which these vehicles provide. They will result in no or only a small amount of premium tax and an improvement in the cash flow situation.

As the trend towards self-insurance and ASO has grown among large, financially secure employers, smaller employers have also considered these funding methods. However, there may be disadvantages to these arrangements for the middle sized employer. An ASO will have a fractionalization of accounting, reporting and other specialized plan duties. As a result, the cost of plan administration could increase over that of an insured plan. Even more important is the fact that the claim liability for LTD will be highest during depressed economic cycles. It is at these times when the employer is least likely to have the capital available for proper funding of the claim liability. Without proper funding, that is, reflecting future claim liability on the employer's balance sheet, current disabled employees cannot be secure in their benefit expectations. Any failure for benefit security will invite regulations similar to that which we in the United States have witnessed in the pension field.

Fully pooled insurance is appropriate for most policyholders. With full pooling, it is essential that each policyholder be charged an equitable rate for the coverage. A fully pooled plan will exist only if each participating group is remitting at a rate which reflects differences in industry, occupation, area and other rating variances.

Similar to life insurance, one of the rating options available to larger policyholders is experience rating. In order to experience rate LTD benefits, some leveling of claims is required due to the low frequency but possibility of large amount of claim. Usually, pooling of larger claims and a credibility formula will be used. The advantage of experience rating is that the employer will maintain a strong interest in the experience of the disability program. If the plan is a fully insured one, we have found little incentive for the

employer to take an active part in the rehabilitation program. This may particularly be true of employers who would tend to replace early retirement under their pension plan with the fully insured LTD plan.

The influence of industrial and occupational classes upon long term disability experience is very evident in the loss ratios of our company's business and in the intercompany experience. The annual experience study of group long term disability experience contained in the 1977 Reports breaks out the incidence experience by broad industry classification. For groups containing a majority of hourly employees, the ratio of actual claims to the experience of all industries combined ranged from 195% for the mining industry to 75% in the finance, insurance and real estate category. This difference would be greater if further categorized by individual occupations.

An important element in occupation class rating has become the expected state of the economy. We have seen the correlation between the level of unemployment rates and the incidence of disability in such cyclical industries as aircraft and automobile. More recently, this trend has been evident in the education field. It may be necessary to take into account the expected level of unemployment when rating certain occupational groups.

Regarding the experience by occupation, the select groups continue to be office workers, both hourly and salaried, managerial and professional group. Due to the continuing bad experience in the blue collar market, we will underwrite only cases with high white collar content. The loadings on occupations other than those listed above is 25%.

The pre-existing condition either eliminates or limits the benefits during an initial period of coverage if disability results from a condition for which treatment was received during a period immediately prior to the effective date of coverage. In order to provide more liberal benefits on smaller groups, the trend has been towards longer pre-existing periods for this category of plans. It is not uncommon to see pre-existing conditions with a 12 month treatment period prior to the effective date and a 12 month waiting period following the effective date of coverage. It should be noted that certain state insurance departments have limited the periods which may be included in the pre-existing clause. For instance, Montana has limited these periods to three months and six months respectively.

In larger groups, the trend has been towards replacing pre-existing condition clauses by a waiting period for coverage following the date of employment or in certain industries by pre-employment physical examinations.

Recent regulatory amendments mandate health care coverage for mental and nervous disorders. Although not subject to these regulations, group LTD plans seem to be split between those which allow full coverage on these disorders and those that limit the coverage. The common limitation is to provide benefits during the period in which an insured is institutionalized or for a reduced period, such as two years. In his studies of disability insurance, John H. Miller has noted a correlation between the incidence of disabilities resulting from subjective causes such as nervous and mental disorders and liberal benefit provisions. We recently experienced a similar increase in mental disorders among teacher groups when lay-offs increased. The mental and nervous limitation referred to above reduces the cost of a plan from 2% to 10% depending upon the occupation and plan design of the group.

There seems to be no current interest in excluding drugs and alcoholism in group LTD policies. There are two reasons for this. Public sentiment and court rulings have tended to classify alcoholism as a disease. In addition, the claim handling of alcoholism and drug addiction is difficult. It is hard to isolate these conditions as they are usually accompanied by physiological disorders which will qualify the individual for disability benefits.

Adequate experience data has always been a problem in the disability area. Over the past few years, the Society's intercompany study of group long term disability insurance has provided us with a growing base of information. However, as the study cautions, this experience may not be appropriate for an individual company due to the varying policy provisions and underwriting and claim practices of the contributing companies. The study does indicate the general level of recent disability experience as well as compare the influences which major policy provisions have upon disability experience.

In addition to the lack of experience data, the pricing of long term disability benefits is further hindered by the effect of short term fluctuations due to economic conditions. The experience of LTD plans during the early 1970s is an example. There have been many demonstrations correlating the rate of employment and the high level of disability claims.

Since 1974, there has been a large increase in unemployment rates to levels much greater than those experienced earlier. However, the financial experience of an LTD product line remained favorable. This was due in part to the leveling of incidence rates. The experience under the Social Security disability program also showed decreasing incidence rates in 1976 and again in 1978. This seems to indicate that more than the rate of employment must be considered in predicting short term fluctuations in the incidence experience.

The effect of economic conditions upon termination rates is much harder to determine. In theory, claims arising out of an economic type of conditions are very likely to be on individuals who are in much better physical condition than the regular hard core disability claims. This would mean that the life expectancy of individuals presenting claims of an economic nature would be considerably longer than on regular disabled individuals. The implication is that not only will we get a higher level of claims, but also that each claim will have a larger financial impact. Indeed, this appears to not have been the case. Again, using my company's experience, we have seen very little decrease in termination rates over the past four years. The Society's Inter-Company Study indicates very slight decreases in termination rates when compared to the marked changes shown in the incidence rates in the early 1970's.

We use modifications of the 1964 Commissioner's Disability Table for the valuation of LTD claims for experience rating and annual statement reporting. Without modifications during the first few years, the CD Table is inadequate for Group LTD. The interest credit on the disabled life reserve for life insurance companies in the U.S. must reflect full Federal Income Tax and the long term nature of the benefit. The usual crediting rate varies between 3% and 4%.

Our claim studies indicate that the rate of approval for Social Security benefits is approximately 70% of those eligible.

MR. RICHARD S. BILISOLY: Most of our clients sponsoring LTD plans insure these plans. My remarks today, however, result from our serving as consultant to approximately 60 self-insured LTD plans. Most of these plans are fully self-insured - though several are self-insured only with respect to the first five years of disability. The plans range in size from as few as 400 lives to 5,000 lives.

Nearly all the plan sponsors had determined to self-insure prior to engaging us as consultants. Some have insisted upon self-insurance despite protestations that too few participants are involved to generate predictable results. Where this has been the case we have felt no qualms over advising such sponsors to contribute heavily to the trust fund during the first several years--even though initial contributions might exceed premiums payable to an insurer. (Virtually all these plans employ the 501 (c) (9) trust as a receptacle of funds earmarked for disability payments.)

Regardless of the size of any group deciding to embark upon self-insurance of LTD, we feel an obligation to prepare a projection of expected claim payouts, together with an estimate of liability build-up. Even more important, we try to show the likelihood of adverse deviations from expected claim payouts, as well as the chance that the trust fund will at any time become depleted.

Some of the groups described are affiliated and have therefore decided to partially pool risks involved in self-insuring their LTD benefits. Contributions to the trust made by affiliated groups reflect each group's inherent risk - being based on a "tabular cost". Tabular (or expected) cost is the product of benefit, probability of disability and disabled life annuity for all participants in a group. Tabular cost is adjusted by a factor which is a blend of a particular group's experience and overall pooled experience. The proportions of the blend are dependent upon a group's "credibility percentage".

Each year a report is prepared for every group. The report indicates the suggested contribution for the year, and identifies those factors which have caused the contribution to vary from the prior year. In addition, pooled assets on hand are compared with estimated pooled liability for claims outstanding and unreported. Deficiency or oversufficiency of assets at any year end forms a basis for adjustment of tabular costs as mentioned above.

Nearly all the self-insured LTD plans have the following characteristics:

- Offsets are for Social Security (just disability PIA for most plans), for Worker's Compensation, and for payments under the employer's pension plans. None of the plans provide more than 60% of pay before offset, though benefits from all sources may exceed 60% of pay.
- Plans which have been changed for A.D.E.A. provide benefits to age 65 for disabilities commencing before age 60, and to the first to occur of five years or attainment of age 70 for disabilities commencing at age 60 and above.
- Though some plan sponsors have considered indexing benefits, none have as yet done so. However, no benefits are reduced on account of increasing Social Security benefits.
- All these plans are paid for by the employer. There are no employee contributions.

- Proceeds to claimants are subject to U.S. income tax, except for the \$100/week exclusion allowance where applicable.

Since nearly all plan sponsors had themselves decided to self-insure, the decision of whether or not to accept certain classes was seldom ours. However, our outlook concerning expected morbidity is affected by classes of employees covered. Actually, the great majority of these groups are of salaried white collar composition.

Pre-existing conditions are almost universally covered by the plans. So far, adverse claim results do not appear to have emerged as a consequence.

In several instances, mental and nervous conditions have been restricted to two years of benefit - or have necessitated hospital confinement after two years. Most plans, though, treat these conditions as any other disability. There is evidence that a significant proportion of claims arise from nervous and mental causes.

We began consulting with self-insured LTD plan sponsors about ten years ago. Although the basis first selected to predict morbidity and cost has so far proven rather accurate, we appear in retrospect to have been somewhat fortunate in our selection. Experience which has emerged so far tends to indicate that claims are occurring more frequently than had been anticipated, but that rates of claim termination are slightly higher than had been expected.

Deviations in year to year claim experience from results expected for particular groups are pronounced, but not more so than might be anticipated from risk-theoretic calculation.

Needless to say, the Society's intercompany reports on LTD experience are immensely useful as a standard against which to compare statistics emerging from these self-insured plans, inasmuch as our plans' exposure is meager compared to that for plans included in the Society study. Despite the relatively small exposure, the product of frequency and duration of claim within the pool of self-insured groups appears to parallel a similar product for "all" groups emerging in the Society's ongoing study.

While total morbidity shown in the Commissioners 1964 Disability Table may not differ markedly from that coming from the self-insured plans, use of the 1964 Commissioners Disability Table for establishing claim reserves does not seem to be warranted. Reserves determined from the 1964 Table would appear to be perhaps 20% low.

Within the overall pool of self-insured LTD plans approximately 82% of claims incurred qualify for offsetting U.S. Social Security disability payments.

MR. KURT K. VON SCHILLING: Today, I would like to discuss the questions in front of us from the vantage point of a solely Canadian Insurer and, as such, I will limit my remarks to the Canadian scene.

Almost all plans currently underwritten provide for at least the direct offset of the primary disability benefit provided under the Canadian or Quebec Pension Plan. Secondary benefits (i.e. - Disability benefits payable based on the number of dependent children) are less frequently offset. This pattern has been in existence for many years and there has been very little trend during the last number of years.

Generally, Long Term Disability contracts also have a pro-rating clause which stipulates that disability income and pension income should not exceed 85% of predisability earned income. Usually, disability income obtained from personal individual insurance contracts are excluded from the application of the pro-rating clause.

A current development which disturbs me greatly is the advent of Group Creditor's Disability Insurance. This new benefit is being written with respect to small loans. However, the extension to mortgages and other long term loans is not that far away. The origin of my concern lies in the area that this new group plan will lead to over-insurance and, hence, a definite increase in the claim cost on all Group Long Term Disability plans.

Group Creditor's Disability benefits are outside of the current pro-rating and offset clause. I feel that most consumers and consultants wish to see it continue to be outside of the application of the pro-rating and offset clause. Since an employee elects to insure his loans against the disability risk on the individual basis, most consumers and consultants will argue that it should continue to be outside of the pro-rating clause.

The end effect of all of this will be that indirectly the monthly disability benefit will be increased by \$200 to \$300, representing about a 20% to 25% increase in benefits. My off-the-top estimate would be that claims costs would increase by 25%.

Some plans provide for direct indexing up to a fixed percentage per year. The percentages range from as low as 2% to as high as 8%. Some of the plans have provided indirectly by allowing ad hoc adjustments similar in nature to pension adjustments for loss of purchasing power.

On the Canadian scene, very few changes have occurred in the funding area during the last number of years. Substantial experience rating has been granted for many years. Experience rating is accomplished either through a credibility formula or by experience rating the first number of years of benefit payout. I find it interesting that A.S.O. and self-insurance programs have been utilized more frequently by public institutions than by private industry.

Stop-loss coverage is available and we have recently written our first such arrangement. The major points which need to be resolved are:

(a) What does the "stop-loss" arrangement cover?

- 1) Incidence of claim only;
- 2) Recovery of claim only or
- 3) A combination of both.

The one we recently wrote covered only the incidence of claim.

Stop-loss can be written in conjunction with an A.S.O. arrangement or with an insured program that is fully-experience rated or even partially experience rated.



The foregoing will probably have an effect on how the stop-loss is administered. Whenever claims exceed the stop-loss limit, amounts of money could be transferred from the insurer to the policyholder or alternatively, claims amounts determined in accordance with the pre-determined formula are then fully-pooled and the recovery experience on such claims would be outside of the experience rating formula.

When the stop-loss is written on the basis of incidence of claim, then this could be accomplished on the basis of:

- 1) Number of claims;
- 2) Annual benefit or
- 3) New liabilities (i.e. - a new active claim reserve)

Here, again, practical questions must be resolved, especially with respect to benefit amounts which fall under the off-set category. In most instances, the actual off-set amounts will be determined considerably after the date of admittance. My own suggestion in this area is to stipulate the offset amount as being outside of the stop-loss arrangement.

The last, and final, major consideration is the timing of the annual stop-loss review. Should this be done immediately at the end of the policy year, at the end of the qualifying period, or at a point of time that all relevant claims have been reported and admitted? This timing will clearly have an effect on the treatment of unreported claim reserve in the application of the stop-loss formula.

On the Canadian scene, no new trends have developed recently. Our own practice is that claimants must be under active and recognized treatment for mental and nervous conditions as well as for alcohol and drugs. Except for the very small case market, we do not include a pre-existing condition in our contracts. We write and have written for many years all industry classes of occupations and our experience on all blocks of business has been acceptable.

The 1964 Commissioner's Disability Table is not adequate for Group Long Term Disability and the Society of Actuaries' Group Long Term Disability Experience reports substantiate this quite clearly. The Society reports are very useful and I would hope, and strongly suggest, that they be expanded especially in the area of providing more information on recovery rates. In my opinion, the definition of disability is a significant feature and has a substantial effect on recovery rates during the first two years. I also feel that recovery rates are influenced by occupation. On a number of large cases I have noticed over the years that whenever we experience claim rates above the expected level that subsequent recovery rates are also higher than expected -- a very welcome surprise.

I recently looked at about 500 claims of which 75% were admitted under the Canadian and Quebec Pension Plans -- 2% of claims were not eligible and the remaining 23% were declined. The Canadian and Quebec Pension Plans have a more stringent definition of the disability. However, the number of declinations still surprised me.

On the Canadian market scene, there are many techniques of crediting interest on Group Long Term Disability plans. The techniques vary in sophistication depending on the size of the client. There are a large number of techniques which can be classified as new money techniques which are either related to an outside interest indicator or a new money rate of return earned on internal designated assets. Interest crediting techniques are as complex and as divergent as in the pension marketplace. The Long Term Disability risk is very similar to the pension risks except of a shorter duration. This is the only feature which must be recognized in the design of the interest granting technique.

MR. ROBERT W. GRINDLEY: Identification of trends in plan design tends to be hampered by a comparative lack of new activity in the Long Term Disability field in Canada. Currently group dental and even group legal seem to be attracting more attention than Long Term Disability.

Notwithstanding that fact, I have some observations on recent plan design.

In our area there seems to be a trend towards offsetting only employee CPP disability benefits rather than both employee and family benefits. The rationale is that, with only the employee benefits offset, the disability income of the family is more likely to approach the target of 75% of pre-disability income than if CPP benefits payable to the children of disabled employees are also offset. A.D.E.A. has not, as yet, complicated our business but we expect similar legislation here in Canada.

There is a very lively interest in the indexing of benefits once they have commenced - to soften the impact of inflation. The indexing arrangements which are generally offered are very similar to those which were in vogue in the mid '70s in Canada for those pension plans which had formal indexing arrangements. The indexing is linked to the change in the CPI but subject to a cap of 3% or perhaps 5% in any year. The additional premium quoted for indexing generally seems to be of the order of a 5% increase in premium for each 1% potential increase in benefit. Not only is there an interest in this arrangement but some of our clients have actually introduced such features to their plans.

In our local Alberta market, which is greatly influenced by the practices of companies in the oil industry, the trend appears to be towards the employer paying the premium for Long Term Disability benefits under an arrangement which still makes the benefits non-taxable. (In Canada, benefits remain non-taxable only if the employee pays the entire cost.) One method is for the employer to pay the premium directly but include the amount of the premium in the employee's T-4 forms at the end of the year. In effect the employer has increased the employee's earnings and the increase has been applied by the employee to pay the Long Term Disability premium thereby making any benefits non-taxable.

In our market the demand seems to be for other than fully-pooled Long Term Disability coverage. This may well be the result of better than average experience due to the buoyancy of Alberta's economy. As a consequence, we see virtually a full spectrum of experience rating approaches. The most common, however, involves experience rating fully an initial period of two years or more on each claim with full pooling thereafter. Other experience-rating systems we encounter use the credibility approach with credibility

factors applied to either the experience of each year separately or to cumulative experience.

Because few western Canadian companies employ more than 1,000 employees the number of A.S.O. contracts is limited. However, the disability program for the employees of the provinces of both Alberta and Saskatchewan are on a modified A.S.O. basis with insurance companies performing the claims adjudication and payment functions.

Again, there are few formal self-insurance arrangements of which we are aware, but the City of Calgary with some 8,000 employees underwrites its own disability program with a minimum of third party input.

There seems to be a trend towards generally tightening up of Long Term Disability contracts in the face of what is reported to us as a general deterioration in underwriting results. We have, however, not observed this general deterioration in Alberta.

In line with the apparent general tightening of underwriting requirements, we still have difficulty in finding coverage for blue-collar groups. This should be a matter of concern to those who are advocates of the private enterprise system. If the insurance industry is not willing to underwrite coverage for certain classes of workers, government may well feel compelled to step in.

Pre-existing condition clauses appear to be more prevalent in Long Term Disability contracts than formerly. This is particularly true where the number of lives insured is less than 100. For larger groups it is usually possible to negotiate the removal of the pre-existing clause.

The restrictions on payment for disabilities arising from mental and nervous conditions generally requires that the patient be under on-going active treatment in order to qualify for the continuation of benefit payments beyond the "own occupation" cut-off point.

The situation with regard to alcohol and drugs is very similar to that with regard to mental and nervous conditions, with perhaps even more emphasis on the active treatment requirement and a better identification of the type of treatment program which will qualify the patient for continued benefit payment.

With regard to interest credits, the number of insurers who are identifying interest credits on reserves held under Long Term Disability contracts, even for fully-pooled coverage, appears to be steadily increasing.

As to the proportion of claimants qualifying for Canada Pension Plan disability benefits, the stringent definition of disability under C.P.P. leads us to expect that a large proportion of Long Term Disability claimants would not qualify. However, it is standard practice to encourage, and in many cases even to require, Long Term Disability claimants to make application for C.P.P. disability pensions, and C.P.P. sources advise that their rate of rejection is less than five percent. From this we can only conclude that perhaps as many as 90% or more of Long Term Disability claimants also qualify for C.P.P. benefits.

