
Predictive Medical Information and Underwriting

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Predictive medical information is used by underwriters to assess the future risk of a claim in medically based insurance products such as health, life, and disability insurance. Medical underwriting involves the science of evaluating medical information to determine the risk for groups of individuals with various medical conditions. In disability insurance, this involves an evaluation of medical information to predict the risk of becoming disabled.

Before discussing medical underwriting, an understanding of certain terms used by disability insurance companies and the products that are available is required. The first is the definition of disability. The Americans with Disabilities Act (ADA) defines disability as the following:

A physical or mental impairment that substantially limits one or more of the major life activities; or has a record of such an impairment; or is regarded as having such an impairment even when no impairment exists, no substantial limitation results from the impairment, or the impairment is only substantially limiting because of the attitudes of others.¹

This is a very broad definition of disability. The enforcement of this act is the responsibility of the Equal Employment Opportunity Commission (EEOC) and involves employment law.

The ADA definition of disability is very different from the definitions used by disability insurance companies, which focus on a person's ability to work. While there are many different definitions currently used by the disability insurance industry, one representative

example of how disability insurance products define "disability" follows:

Total Disability or Totally Disabled means that because of Injuries or Sickness: 1. You are unable to perform the material and substantial duties of Your Occupation; and 2. You are not engaged in any other occupation; and 3. You are receiving Physician's Care. We will waive this requirement if We receive written proof acceptable to Us that further Physician's Care would be of no benefit to You.²

This definition is narrower and involves a functional assessment of an individual's ability to perform his or her occupation or gainful employment.

Disability insurance is an insurance product designed to protect an individual's income during his or her normal working life and may provide assistance in returning to work if a disability occurs. There are two major policy forms: group and individual. Group policies are insurance contracts between the employer and the insurance company. Employees of the business are insured under these contracts but do not own an individual insurance policy with the insurance company. Group disability insurance includes short-term and long-term disability.

The other major policy form of disability insurance is individual insurance. The predominant product is a disability policy owned by an individual that protects his or her income against a disabling injury or sickness. There are also individual business products that are typically owned by the business and protect its interest in the insured's ability to work.³

Having discussed the meaning of disability and the types of disability insurance policies that are available, certain terms common to all these policies must be

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understood. The elimination period is the length of time that an insured individual must be disabled before a benefit is paid. For group short-term disability, this is usually a few days to a few weeks. For group long-term and individual disability income, this is typically 90-180 days. The benefit period is the maximum period for which benefits will be paid. For group short-term disability, this is usually a few months to one to two years. For group long-term and individual disability income, the most common benefit period is to age 65. Benefit amount is the amount of money that will be paid in the event of disability. In group products, this is a percentage of income determined at the time of claim, subject to a dollar maximum. In individual disability income, this is a dollar amount specified at the time the policy is issued.

In general, group disability policies are not medically underwritten; individual disability policies are. However, there are exceptions.⁴ Evaluating medical risk involves an assessment of morbidity as well as mortality. Disability insurance companies are more interested in morbidity, which includes the risk of loss of or decrease in work capacity from medical conditions. This is a more difficult analysis than the mortality assessment done by life insurance companies. For policies that are medically underwritten, this results in a more extensive medical evaluation than is often done by life insurance companies.

When underwriting applications for insurance, there are several options that can be used by underwriters once an individual's risk has been classified. The simplest option is to accept the application and either issue the policy as applied for or decline it. For those group insurance applicants who are medically underwritten, this choice of accepting or declining the application is the only option available to the underwriter since these policies cover groups of employees and cannot be modified on an individual basis.

Individual disability income insurance underwriters have many other options available to them. These options may allow issuing policies to individuals who would be considered uninsurable for group disability if they were medically underwritten.

Individual disability income underwriters can increase the premium, lengthen the elimination period, or shorten the benefit period. They can add riders that exclude certain medical conditions from coverage. They can decrease the benefit amount for which the individual applied. They can remove optional benefit riders that the individual requested.⁵

In classifying risk, underwriters evaluate several factors. For all disability products, these include non-medical concerns such as occupational and financial issues. Various occupations have different claim inci-

dence rates so they are charged different premiums. Financial concerns include how much variability there is in the applicant's annual income and the financial stability of the business in which the applicant is employed.

In performing medical underwriting, the specific medical information reviewed varies from application to application. Disability insurance companies have underwriting rules based upon the age of the applicant and the amount of coverage applied for, which determine what medical information will be reviewed. Besides obtaining the information that the insurance company's risk rules require, the underwriter always has the discretion to obtain additional information as he or she judges necessary.

All applications have medical questions that must be answered. Underwriters may use telephone interviews or letters to the applicant to clarify the answers to these questions as necessary. Testing of blood and urine specimens and electrocardiograms may be performed. A paramedical examination that includes a measurement of height, weight, and blood pressure may be conducted as well. Examinations by a physician are rare. A copy of the applicant's medical records may be obtained; these records are usually from the applicant's primary care physician but may be from a specialist.

The basic fairness principle that underlies the underwriting of all insurance products is that the premium paid is proportional to the risk of future claim. The goal is to treat like risk in a like manner so that groups of individuals with similar risk receive policies with similar underwriting actions. The goal of underwriting is not to assess the risk of having a claim for any one individual but to assess the risk of claim of groups of similar individuals. Underwriters are not looking for reasons to decline applications for insurance. Instead, they are trying to sell as much insurance as possible while appropriately classifying the risk.

The main tool that underwriters use to assess the medical risk of an application is the company's medical underwriting guidelines. These guidelines provide direction on what underwriting actions to take for various medical conditions, and are based upon general medical knowledge, analysis of medical literature, an actuarial analysis of the company's claims experience, and other external data. Each company's medical director provides assistance to the underwriters to assess the severity of various medical conditions and advice on disorders that are not discussed in the medical underwriting guidelines.

A company's medical guidelines are reviewed on an ongoing basis and are changed to reflect advances in medical knowledge. New medical disorders affecting a significant number of individuals will be studied,

and new guidelines created. Prudence dictates that the initial recommendations for underwriting actions on new conditions be approached conservatively. A cautious approach is prudent particularly in individual insurance because if the initial recommendations underestimate the number of future claims, the company usually cannot alter those contracts in the future by increasing premiums, adding exclusion riders, or any other action that is adverse to the policyholder.⁶ As the company develops experience with a particular new disorder, and if it is found that the underwriting guidelines are too conservative, they may be changed, and existing policies may be modified to the benefit of the policyholder.⁷

The concept of adverse selection must be discussed to understand fully the risk involved in medical underwriting. Adverse selection occurs when the applicant has knowledge of a medical condition that increases the risk of disability but does not share this knowledge with the insurance company. This knowledge can impact an individual's decision to apply for insurance since someone who is more likely to have a claim in the future is more likely to buy insurance. It can also impact the timing of the purchase and the amount of coverage for which an individual applies.

Adverse selection impacts the insurance company because it causes the underwriter to underestimate the risk of claim. This risk misclassification will result in a claim incidence rate that is higher than was anticipated, and this can lead the company to increase the premium charged to the standard risk group over time to cover the higher than expected claim experience. This can cause future applicants who are standard risks to apply to other companies that have not had this adverse selection, which can lead to a progressive decrease in the percentage of policyholders who are actually of standard risk in the standard risk pool. This will further worsen the claim experience and can adversely impact individuals who actually are standard risk because they will pay the higher premium caused by the increased claims.

Adverse selection can occur whenever there is individual choice in the decision to apply for insurance. This occurs with all individual disability policies. This happens also with many group disability policies. Although these products are purchased by an employer, there frequently is a funding arrangement under which the employer pays a portion of the premium and the covered employee pays the remainder. There may be an individual choice concerning the amount of insurance. In addition, members of the employer's management team are involved in the decision to purchase the product, which results in some degree of adverse selection in group policies.

Medical underwriting helps manage adverse selection. As discussed previously, however, group disability policies are usually not medically underwritten. As a result, these policies have terms included in the contract that perform a function similar to medical underwriting. The main contract term of this type is the pre-existing condition clause.

Contrary to what might be expected, this clause does not exclude from coverage all medical conditions that existed prior to the policy effective date. These clauses have specific restrictions. One typical clause states:

Your plan does not cover any disabilities caused by, contributed to by or resulting from your pre-existing condition. You have a pre-existing condition if:

- you received medical treatment, consultation, care or services including diagnostic measures, or took prescribed drugs or medicines in the 3 months just prior to your effective date of coverage; and
- the disability begins in the first 12 months after your effective date of coverage.⁸

These clauses have two specific limitations. The first is the manifestation portion of the clause. In the example cited above, this clause defines pre-existing conditions as those that meet one of a series of requirements in the three months just prior to the policy effective date. Any condition that meets these requirements, but not during the specific three-month period, is not a pre-existing condition and would, therefore, not be excluded from coverage. The second restriction is that a disability from a pre-existing condition will only be excluded from coverage if that disability begins in the first twelve months (the specific time period may be different depending upon contract language) after the policy becomes effective. Any disability beginning more than twelve months after the policy effective date would not be denied benefits even if it would otherwise be excluded under the pre-existing condition clause.

The effect of the pre-existing condition clause is to exclude from coverage those conditions that are present shortly before the policy becomes effective and cause a loss of work capacity within a limited period of time. These conditions are most likely to contribute to any adverse selection. As a result, this clause provides protection for the insurance company against adverse selection in group policies, a function similar to medical underwriting in individual policies. This assists in correctly classifying the risk so that the actual claim rate matches the expected rate, which helps to limit the premium charged thus benefiting all policy owners.

In conclusion, medical underwriting involves the review of various forms of medical information to determine the risk of future claim. The goal is to

classify the risk of the individual applicant so that the premium charged is proportional to the risk involved, with like risk being treated in a like manner.

References

1. Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12101-12213 (2000).
2. Provident Life and Accident Insurance Company, *Individual Income Protection Insurance* (2001): at 10.
3. Individual business disability insurance includes business overhead, buy/sell, and key person insurance. Business overhead reimburses the business for the insured individual's share of the expenses. Buy/sell provides the funding for the purchase of an individual's share of a business if disabled. Key person pays a benefit to the employer to hire a replacement for a key employee in the event of that individual becoming disabled.
4. Group disability policies may have an option elected by the employee to purchase an increased amount of coverage. Some employees will apply for coverage after the open enrollment period ends (late enrollees). The amount of optional coverage and the entire amount of coverage for late enrollees are typically medically underwritten. Individual policies may be offered to groups of people (e.g., all the partners in a law firm) with a set amount of coverage guaranteed to be issued on a standard basis. This is done when the group is large enough and has other characteristics so that it has the risk dynamics of group disability insurance. The guaranteed amount is not medically underwritten, but any additional coverage applied for is medically underwritten.
5. Optional benefit riders include cost of living adjustment (COLA) and future insurability option (FIO). COLA provides protection against inflation. It can be linked to the federal consumer price index or be a percentage determined at the time the policy is issued. FIO provides the ability to purchase additional insurance in the future without medical underwriting at that time.
6. Individual disability insurance policies have generally been non-cancelable contracts. These contracts cannot have their premium increased. Some policies are issued on a guaranteed renewable basis, and there is the possibility of increasing the premium.
7. This is the concept that underwriters have one chance to assess the risk correctly. If an applicant disagrees with the underwriter's decision, s/he may appeal and provide additional information supporting a different assessment of the risk associated with the particular medical disorder. Companies also have a policy change area that receives requests to alter policies by actions such as decreasing the premium or removing exclusion riders. This request may be based on a clinical improvement in the condition or advances in medical knowledge.
8. UNUM Life Insurance Company of America, *Group Longterm Income Protection Insurance* (2001): LTD-BEN 7.