

Issue
No 4

Hannover Re's Perspectives –
Current Topics of
International Life Insurance

Nicola-Alexander Sittaro

*New Target Group
Concepts for Enhanced
Personal Accident
Insurance*

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Rückversicherungs-
Aktiengesellschaft

Karl-Wiechert-Allee 50
30625 Hannover, Germany

A. Helmuth Reich, Editor
Telephone +49/511/56 04-0
Fax +49/511/56 04-118

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*New Target Group
Concepts for Enhanced
Personal Accident
Insurance*

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1. Basics

Over the years the classic Personal Accident Insurance has experienced numerous expansions through the inclusion of additional benefits. In addition to the standard benefits included in the policies in respect of hospitalization, rehabilitation and disability, additional components have been added, such as a strong scale of benefits, and inclusion of coverages such as cosmetic surgery or special treatments for teeth and the jaw. This scale which defines the level of payment increases according to the degree of impairment and/or the type of dismemberment. Other alternative products of the Personal Accident Insurance include Personal Accident Insurance with premium reimbursement, and Personal Accident Income Insurance. The benefits of the latter are paid if the impairment caused by an accident is 50 % or more.

In the past three years there has been more attention paid to disability affecting children, because various Personal Accident Insurance products are now offering coverage in this respect. Disability affecting children is usually defined according to the severity of a handicap. As is generally known, children not only become disabled by accidents, but by numerous diseases as well. In the past, the Personal Accident Insurance did not take these diseases into account due to the narrow definition of the term "accident" and the clear separation of insurance branches.

Parallel to this development, other countries have been very successful with a different kind

of insurance which includes Dread Disease coverage. These Dread Disease protections (Critical Illness protection) pay the full sum insured after the occurrence of previously, clearly defined diseases, i.e. after the disease is diagnosed. The central idea of these new insurances was to cover the following severe, but also frequently occurring events:

- ◆ Myocardial Infarction
- ◆ Cancer
- ◆ Stroke
- ◆ Kidney Failure

By extending the Dread Disease related coverage, other threatening illnesses, that are clearly covered under a classic Personal Accident Insurance, were integrated quite early. The following diseases belong to this category, and are almost always covered:

- ◆ Paraplegia
- ◆ Burns
- ◆ Severe head injuries
- ◆ Loss of one or more limbs

Meanwhile there are alternative products in the Dread Disease class, covering 30-40 illnesses; about one third of these covered illnesses originated from the area of Personal Accident. This development is understandable, because everybody knows the serious consequences of severe injuries.

Enhanced Personal Accident Insurance: Target Group Concept

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">◆ Classic Personal Accident Insurance plus lump sum- or income benefits◆ Target Groups:<ul style="list-style-type: none">– Children– Adults– Elderly Persons◆ Additional benefits for age-related or serious diseases | <ul style="list-style-type: none">◆ Characteristics of the diseases:<ul style="list-style-type: none">– Serious and threatening– High level of notoriety– Everyone knows someone who has had it– High level of interest of insurability |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

It is interesting to see that the marketing of this special insurance has been only moderately successful in Germany. The reason for this is not yet clear. Looking at comparable countries such as Austria or Great Britain, one observes that the Dread Disease products are far more successful.

According to the specific age group, there are different diseases, described as threatening or severe. When such diseases are selected for

inclusion under an insurance policy, it is usually due to a high level of notoriety, i.e., acquaintances of the insured have been affected. Furthermore a clear definition of these diseases is necessary, as well as exact statistical information. In calculating the premium, a clear recognition of the interaction between age and Dread Disease must be taken into account.

2. Enhanced Personal Accident Insurance – focus on children

The expansion of Personal Accident Insurance for children by the inclusion of severe and chronic diseases can be achieved through different benefit models. These models differ primarily in the way the benefit is paid, either as a lump sum payment or an income payment. The definition of the occurrence is different, as the following explanations show. In the past, the classic Personal Accident Insurance has already been extended by numerous endorsements.

These medically-oriented expansions used to leave the impression, in the old days, of being sporadic and isolated. More comprehensive covers, such as a disability cover, for example, were not available in Germany. Because of how Personal Accident Insurance was defined, such expansions were impossible.

This gap was extremely noticeable with children, who belong to an accident-prone group. Because of the health related and social environment, most children usually do not have any insurance for disabling diseases. A disability cover, as is common for adults and professionals, does not exist in a comparable way for children. It is true that the Personal Accident Insurance covers a large part of the disability, but because of the definition, there is a connection to the cause. Children's health impairments due to diseases and other chronic illnesses occur quite often, and

just like accident injuries they can lead to lifelong disability. This risk remained uninsured in the past.

Some countries extended the existing Dread Disease covers for adults to children. In some degree the children were included in the Dread Disease insurance of the parents for no extra premium or a small additional premium. The common spectrum of diseases in respect of the Dread Disease covers, however, is not appropriate for children. Myocardial infarction and stroke are typical diseases for adults of advanced age.

A spectrum of Dread Diseases affecting children would include the following age-related illnesses:

- ◆ Cancer
- ◆ Diabetes Mellitus
- ◆ Inflammation of the central nervous system (meningitis, encephalitis)
- ◆ Multiple Sclerosis
- ◆ Kidney Failure
- ◆ Organ Transplantation

This list is not complete but it is certainly possible that such a cover should contain the majority of disabling diseases for a child's age group.

In order to offer more complete coverage, the missing diseases could be included by extending the policies. Such additional covers might contain:

- ◆ Benefits after major surgery (for example cardiac and brain operations)
- ◆ Nursing Care (nursing fees)

2.1 Models of lump sum benefits according to severity of impairment

This first model of an extended Personal Accident Insurance product for children has enabled children, for the first time, to obtain coverage for their severe and chronic diseases. The strict limitation of the classical Personal Accident Insurance, in which permanent health impairments had to be related causally to the accident, is no longer required under this model. Only the two following groups of diseases remain excluded:

- ◆ Hereditary Diseases
- ◆ Psychic Diseases, mental disorders or behavioral disturbance

The only limitation for all other diseases that applies is that the degree of impairment must be greater than or equal to 25 %. This degree of impairment can be evaluated by the insurance company itself, or through a medical examination.

Of importance for this model is the period between the manifestation of the disease and the discovery of the degree of permanence of the impairment. The assessment of this period is complicated by the fact that numerous severe diseases can lead to death in a short period of time. This particular case must be considered carefully, because the purpose of the insurance is to provide financial support in order to alleviate the consequences of a severe disease and not a life protection. This applies, for example, to cancer occurring often in children. In one third of the cases these diseases can lead to death within 1-2 years. The solution for this problem is the included benefit of life protection, which becomes payable, if the child dies within 12 months after the manifestation of the disease.

A requirement of a waiting period of 12 months, however, means that there will be a payment of 100 % for certain types of cancer. This includes the cases in which death occurs in the second year after the beginning of the disease. Marketing reasons do not allow the waiting period to be extended past 12 months, as it would be difficult to explain these terms to the clients.

Because of the relatively low threshold of impairment (25 %) required before benefit payments, and the fact that many children are predisposed to suffer from chronic diseases, this product requires a comprehensive underwriting.

Upon contracting a disease, the amount of benefits will depend on the determined degree of impairment. In case of doubt, a medical examination would be necessary. These examinations do not present a problem. Their guidelines are universally valid and they have been an integral part of every medical report for many years.

The only problem for this alternative product would arise if the severity of the impairment increases during the insurance period or during the actual handling of the claim. In this case, the payment would have to be adapted to a higher impairment degree, or a second medical examination would have to be carried out in order to determine the increased degree of impairment.

All in all, this model is similar to the Personal Accident Insurance, and because of the available alternative lump sum benefit, the premium is relatively cheap.

2.2 Model of lump sum benefits, with regard to individual diseases

There are generally two possibilities to extend a Personal Accident Insurance for children in order to include severe diseases: either by aiming for a disability cover or by aiming for a Dread Disease Protection. Regarding the latter, the claim is defined after the occurrence of a particular disease. Right from the beginning, the covered diseases are named, listed and defined for this product. The classic Dread Disease cover for adults normally includes cancer, myocardial infarction, stroke and kidney failure. These diseases are threatening, well known, and insurable because there is sufficient statistical material available. Regarding children, the typical adult diseases are less significant. This fact has to be taken into account when designing the corresponding product.

The advantage of such a cover is the really simplified claims analysis. The insurance will pay after the diagnosis is made. The results of this diagnosis can be easily obtained by the physician in charge or the attending hospital. The question regarding the severity of the disease is generally not asked.

One disadvantage of this product is that not all diseases can be listed that lead to severe per-

manent impairment. The policy terms cannot include pages and pages of medical terminology. This conflict can be solved by integrating long term care into the benefits, and setting a low threshold for triggering them. The full payment of 100% of the sum insured could be triggered if, for example, two of the six listed ADL's (activities of daily living) are reached from the ADL-scale (see as well the Barthel-Index).

The Dread Disease product itself allows further inclusions, which would hardly be possible in respect of all other product designs. The cover can be extended to include surgical operations, which are generally considered as being life-threatening and severe. For example, cardiac operations or operations on the central nervous system could be considered.

An underwriting process is necessary for this alternative product, too, but it is far less detailed in comparison to all other products.

The claims handling is extremely simplified by the mere connection with the diagnosis. Despite numerous additional inclusions, the premium of this product can usually be calculated at a very good rate.

2.3 Income benefits model according to level of impairment

This alternative product comes closest to the goal of a disability cover. After reaching a physical impairment or a disability degree of 50% or more, a lifelong annuity will be paid according to a pre-agreed amount. The reports written by the State Pension Office will be taken into account in order to determine the degree of disability. In Germany the State Pension Offices are legally required to produce these reports in order to issue the disability cards to disabled persons. When the physicians, who are appointed by the State Pension Office, judge the degree of disability, they follow generally applicable guidelines. These guidelines are, in this case, directly integrated in the Federal Disability Act. In a claims handling situation, the Insurance Company simply follows the reports of the State

Pension Office and does not carry out any further examinations concerning the degree of physical impairment.

Unlike the lump sum benefits, this model contains income benefits which will be paid for a lifelong period and not just until the beginning of the retirement age, as is the case regarding the disability insurance. It is obvious that annuity products are more expensive than lump sum benefits, especially when the selected level of the annuity represents a realistic estimate of the amount that will actually be needed in old age.

The close connection of the claims handling with the Federal Disability Act, and the decisions

of the State Pension Office, involves many dangers. When the Disability Act was introduced in Germany, it did not intend to measure exactly the physical impairment in the sense of a disablement. Its aim was rather to consider the social and psycho-social aspects of diseases and disability. In this sense, the defined disability regarding children has different goals than the ones regarding adults. For children, the German Disability Act recognizes social integration as an especially important additional factor in measuring the disablement. This integration is related to the child's environment, and certainly not to the adult's world. An example of this is a speech impediment, such as stuttering, in which case the social and psychological impairments have to be added to the existing medical aspects.

It should also be mentioned that the German Disability Act has seldom been applied to children because the rights and advantages contained in the law are oriented more towards adults. Tax advantages, job protection and additional vacation can be mentioned in this context. Because of this, it is justified to presume that the German State Pension Office has not acquired the necessary experience to write the reports for children. This experience is, however, expected in the connection with the insurances for Personal Accident covers for children. For the insurance companies there is a considerable possibility that the insured risk will change during the life of a policy.

More than 2/3 of the statistically registered seriously disabled children come from the medical sections regarding children with hereditary impairments or mental defects. To a considerable extent there are gray areas regarding the organical defects which cannot be clearly explained. This includes, again, speech impediments such as stuttering or disturbances in the articulation, but also skin diseases or vegetative disorders such as bedwetting.

The current insurance model also includes a regular examination after the income payments are due. Should the physical condition improve, so that the severity of the disability represents less than 50%, the income payments are dis-

continued. Because of the connection to the decisions of the State Pension Office, problems are preprogrammed as well in this context. With Diabetes mellitus for example, the degree of disability in children depends on the treatment success. Regarding adults, the disability degree is determined by additional organ complications. As these complications arise only after the disease develops for 15-25 years, the classification would be different for persons under age 18 compared to those over age 18. This conflict can only be avoided if the State Pension Office follows the guideline that the once determined severity degree cannot be withdrawn.

Like the other products, this alternative product requires an intensive underwriting. The administration of the claims is also very expensive, as the files have to be kept open possibly for a life long period.

Because of the income payments, the quoted premium for this alternative product is considerably higher than for lump sum payment models.

2.4 Combination model of lump sum and income benefits

The pure income model has deficits when it comes to three types of diseases:

- ◆ Diseases which have not yet progressed far enough to be officially recognized as a disability
- ◆ Patients, affected by very severe diseases, who require more support at the onset of the disease than during its later stages
- ◆ Diseases leading to death within a short period in time

Diseases such as diabetes mellitus, chronic liver infections or infections of the central nervous system very often reach a disability degree of 50 % or more only after a long development. Nevertheless the patients suffering from these diseases, are limited in their quality of life, and are burdened with considerable additional expenses.

Similarities can also be drawn with diseases causing a strong additional strain for the family, especially during the initial stage, such as transplantation or other major surgical operations.

To the third group belong all types of cancer. One should mention that, for this particular type of disease, the needs of the insured often differ widely from the income payments due to the chronological development of this disease. Requirements, both financial and in terms of

support, are highest in the beginning, especially after the disease has been diagnosed and the initial treatments begun. Once a cancer goes into remission, however, these requirements decrease or are no longer necessary.

The income model does not take the above demands into account. A combination, therefore, of lump sum and income payments would be ideal. Such a combination would compensate for the above-mentioned weaknesses in considering individual needs, as well as provide the advantage of a lifelong annuity for permanent disability. A multiple of the monthly annuity could be paid in a lump sum. The payments follow a disease catalogue which can even include diseases that presumably do not lead to a permanent disability degree of 50%. For insureds affected by diabetes mellitus or cancer, the period prior to a definite determination of a severe impairment is covered effectively by such a lump sum payment.

This model also requires underwriting. The claims handling is not that different from the pure income model. Regarding a possible occurring annuity claim, the insurance company will be informed at an early date. Compared to the pure income model, this alternative product is only slightly more expensive.

2.5 Model of lump sum benefits according to the German Federal Disability Act

The disability examinations carried out by the German State Pension Office are very helpful, especially for smaller insurance companies who would otherwise have to use their own personnel and bear these costs themselves. A "Disability Card" is an official document that clearly indicates the degree of impairment. On the other hand, the administration of lifelong annuity payments is quite costly.

Because of this, there is another alternative model, which contains numerous advantages.

In this case, the total sum insured falls due as a lump sum payment, once the State Pension Office assesses a disability degree of 50% or more. The Disability Card is sufficient as an official document and it is no longer necessary to provide controlling examinations or to keep the annuity files open. Additionally, this alternative product, as a lump sum payment model, could be quite reasonably priced.

2.6 Benefit models in comparison

In comparing the different insurance models, one does not aim at rating their qualities in the sense of "better" or "worse". The models are too different and their purposes are at odds. The lower premium of the lump sum payment model reflects, of course, the smaller total amount of benefits, in comparison to the payment of a life-long annuity. Nevertheless, the insurance premium is an important factor concerning the marketing, and therefore both models should really be offered as alternatives to the buyer.

The new element of the risk assessment in the Personal Accident Insurance is necessary for all alternative models. The more benefits are included in the policy, the more intensive the underwriting should be. Rough estimates indicate that 5-10 % of all children show medical irregularities, which must be considered carefully in respect of possible claims. Under no circumstances, however, should a medical condition lead to an automatic declination. The declination rate would be extremely high and successful marketing could prove difficult, not to mention the total lack of medical necessity for such a procedure.

As all insurance models contain the same exclusion regarding hereditary and psychical or mental disorders, a consideration in this respect is not necessary. Problems result especially from the group of the hereditary diseases. A slight cardiac defect (ASD, VSD), for example, can lead to a valvulitis, causing a disability degree of 50% or more. The origin of such a complication can be clearly traced back to a hereditary disease. Nevertheless, it would be hard to justify the declination of the claim.

Furthermore, all these models cover the span of years from the full completion of the first year up to the 18th year of life. It makes sense to leave out the first 12 months because, within this period, numerous hereditary diseases are discovered. Nevertheless, there will be a certain pressure from the marketing side in the future in order to take advantage of the excellent sales opportunities immediately after birth.

Enhanced Personal Accident Insurance for Children

	<i>Lump Sum Benefit according to Severity</i>	<i>Lump Sum Benefit after Diagnosis</i>	<i>Income Benefit if DOI > 50 %</i>	<i>Income Benefit plus Lump Sum if DOI > 50 %</i>
Sum Insured	100,000 DM if DOI > 90 %: 200,000 DM	100,000 - 300,000 DM	500 - 2,000 DM monthly	500 - 3,000 DM monthly plus 12,000 – 72,000 DM Lump sum
Underwriting	Required	Required	Required	Required
Benefits payable if:	DOI > 25 %	Diagnosis	DOI > 50 %	DOI > 50 % plus diagnosis
Claims Analysis	Medical exam. APR	APR	Pension Office	Pension Office APR
Benefits	Lump sum/several payments possible	Lump sum	Lifelong annuity	Lump sum plus Lifelong annuity

DOI = Degree of Impairment

APR = Attending Physician's Report

The administrative expenses have already been considered under the discussion of the individual alternative models. The advantages are clearly

on the side of the lump sum payment models or the alternative models concerning Dread Disease covers.

3. Enhanced Personal Accident Insurance for adults: Personal Accident plus Dread Disease protection

This combination reverses to a certain degree a market principle. The listed diseases of almost all Dread Disease products contain typical personal accident claims. In this case the Personal Accident Insurance contains Dread Disease elements. The Dread Disease insurance is rarely sold as a stand alone policy, but mainly combined with a life insurance. The following version shows a combination with the classic Personal Accident Insurance.

Enhanced Personal Accident Insurance: Target Group Concept

Target Group Adults:

- ◆ Classic Accident Insurance with common Continental Scale ***plus***
- ◆ Benefits after occurrence of one of the following diseases
 - Myocardial Infarction
 - Stroke
 - Cancer
 - Kidney Failure
 - Organ Transplantation

Under the aspects of the market, and of marketing, the combination "Personal Accident Insurance plus Dread Disease Protection" offers excellent advantages. An accident, as defined in a Personal Accident policy, is an external event that is both sudden and accidental. The suddenness of an occurrence is also reflected in the above-listed diseases, such as a heart attack or a stroke. These are clearly life-threatening strokes of fate. These disease incidents, however, originate internally.

With classic Personal Accident Insurance, customers mainly associate fractures or injuries with accidents. In other words, they think mainly of broken bones. The term dismemberment which is used during the claims adjustment fits perfectly in this context. In complementing the Personal Accident Insurance with the inclusion of coverage for diseases, broken bones are joined by internal diseases. In other words, the whole body is taken into consideration.

This combination offers considerable advantages compared to other existing combinations. All covered diseases are very threatening. They jeopardize one's existence, they are generally well known, and they are easily insurable. Easily insurable in this sense means that reliable statistics are available about risk groups, incidences and mortality.

**Enhanced Personal Accident Insurance
with Additional Benefits for Dread Diseases - Advantages**

- ◆ Similarity to Personal Accident Insurance – Suddenly occurring and threatening health impairment
- ◆ Fractures plus internal organs
- ◆ Myocardial Infarction, Stroke, Cancer, and Kidney Failure commonly known
- ◆ Simple claims analysis – payment after diagnosis
- ◆ Attractive price
- ◆ The combination of Personal Accident Insurance with Dread Disease coverage contains a substantial amount of disability cover

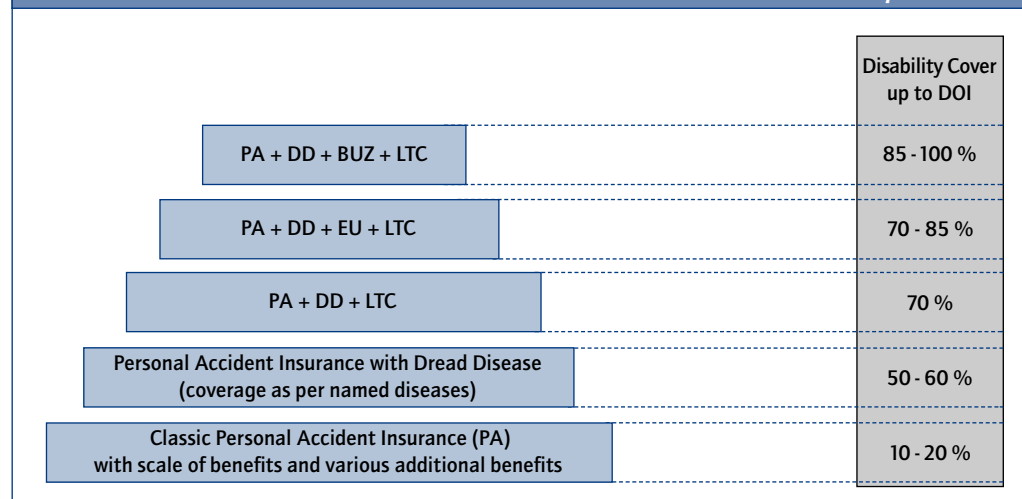
A further advantage of the combination of "Personal Accident Insurance plus Dread Disease Protection" is that it is close to the coverage for disability. The German disability insurance "Berufsunfähigkeitszusatzversicherung (BUZ)", is closer to the PHI (Permanent Health Insurance) than to the TPD (Total Permanent Disability Insurance). The BUZ is an expensive and very often a problematical protection. It contains the following drawbacks:

- ◆ Problematic underwriting and claims handling
- ◆ Many claims arising from problem areas such as back pain and psychological disturbances

- ◆ Before a person can collect the BUZ benefits in Germany, an attempt is made to refer him to other jobs that he can perform
- ◆ High premiums

By including the above-mentioned disease combinations, the Personal Accident Insurance covers approximately 50% or even 60% with advanced age of all conventional claims of a disability insurance, such as the BUZ. The problematic diseases, however, such as back pain and psychic disorders, are excluded in the combined Personal Accident Insurance. This can often lead to legal proceedings. According to rough estimates, these diseases represent ca 1/3 of all claims from the conventional BUZ in Germany.

**Disability Coverage: Coverage of causes of disability
after combination of Personal Accident Insurance with other insurance products**



BUZ = Berufsunfähigkeitszusatzversicherung (see above)
DOI = Degree of Impairment
LTC = Long Term Care

DD = Dread Disease
EU = Erwerbsunfähigkeitsversicherung (see below)

There are, obviously, more causes for somebody becoming disabled than the five previously mentioned diseases. In order to avoid the argument that the above list is incomplete, the following possible solutions present themselves:

- ◆ A light trigger for recognition of the need for nursing care

- ◆ Inclusion of a "Erwerbsunfähigkeitsversicherung", which is a disability insurance where benefits are paid when a person is unable to work in any profession.

3.1 Product design

The inclusion of severe diseases in a Personal Accident Insurance requires a few particulars, which were not necessary for the classic Personal Accident product. The probability of the occurrence of a myocardial infarction, a stroke or cancer are extremely dependent on age. The incidences are rather rare until the 40th year of one's life, but afterwards they increase dramatically. For women, though, the probability of suffering from these diseases is lower. The only exception in this case is the contracting of breast cancer. This strong increase of incidences after the age of 40 requires that, for each age of entry, a different premium rate should apply. In order to solve this problem, several actuarial approaches are available.

A further special feature of this combination product is the introduction of two waiting periods:

1st waiting period: period between inception of the policy and when a claim is first acknowledged

2nd waiting period: period between the time the claim occurs (occurring of the disease) and the payments begin

Both defined waiting periods have the capacity to reduce the claims frequency. All current Dread Disease products worldwide define a waiting period after the inception date of a policy. This 1st waiting period must be completed prior to the earliest occurrence of an insured disease. This waiting period counteracts the anti-selective tendency, that persons, although they are already sick, will purchase insurance coverage. No further explanation should be necessary for the fact that

most of the listed diseases are preceded by symptoms, which are commonly known. This is of course a considerable increase of risk.

The anti-selective tendency can be demonstrated clearly with breast cancer cases. Women are urged to detect early stages of breast cancer through regular self-examinations. The earlier the disease is recognized, the better the chances of recovery. A certain potential of abuse arises, because an affected woman cannot be prevented from taking out an insurance policy before she arranges for further examinations. The claims statistics confirm this trend – breast cancer is the leading claim in some countries. On average, the age of a woman making a claim under one of these policies is 10 years less than the overall average age of women affected by breast cancer.

It is true that a waiting period of 3 months cannot completely prevent the abuse, but is nevertheless a certain protection.

The second waiting period, i.e. between the manifestation of the covered disease and the first acknowledgement of the claim also helps to considerably diminish the claims frequency. Both the classic Personal Accident Insurance policy, and the combined Personal Accident/ Dread Disease policy serve the same purpose: to alleviate as far as possible the effects of the accident on the insureds' daily life. The combined Personal Accident/ Dread Disease policy does not have the character of a survivor's protection. Instead, it assumes a survival period after the manifestation of the covered illness of at least four weeks.

An additional effect of this second waiting period is the drastic decrease of the expected claims. Extensive German studies have demonstrated, that more than 40 % of the patients with a myocardial infarction die within the first four weeks. As far as women are concerned, this proportion is even higher. This early death rate is

particularly high regarding persons of advanced age. The statistics for those who have suffered a stroke are similar; mortality is considerable in the first four weeks and includes circa 10-20 % of the persons concerned. These early death cases are, of course, reflected in the actuarial basis.

3.2 Underwriting

As a result of the high incidence of heart attack, stroke and cancer, an underwriting process is required before inclusion of Dread Diseases in a Personal Accident Insurance. In order to avoid in-depth examinations, there are technical approaches for product design available. The differentiation between smokers and non-smokers,

for example, is of prime importance. Circa 30-40% of all cancers is caused by smoking. 20-30% of all cardiovascular diseases are caused by nicotine abuse. The most elegant solution for this situation are different tariffs for smokers and non-smokers.

<i>Enhanced Personal Accident Insurance: Indicators for risk assessment</i>	
<ul style="list-style-type: none"> ◆ Smoking increases the risk for Myocardial Infarctions by 3-4 times ◆ Smoking causes 20-30 % of all cancers ◆ High blood pressure increases the risk of Myocardial Infarctions by a factor of 3, the risk of stroke by a factor of 6-8, and the risk of kidney insufficiency by a factor of 3-4 	<p>Conclusions:</p> <ul style="list-style-type: none"> ◆ Risk factors for Dread Diseases are easily recognized, evaluated and assessable, therefore: <ul style="list-style-type: none"> ◆ Major effect on selection through underwriting ◆ But: normally only 20-30 % of all cases are intensively underwritten (additional information)

By taking into account the known risk factors for cardio-vascular diseases, a risk selection can be carried out with very simple measures. This primarily involves recognition of high risk groups, such as diabetics.

These examples demonstrate that most of the underwriting can be carried out with very simple measures, i.e. through 4-7 questions on the application form.

4. Enhanced Personal Accident Insurance for elderly persons

Children and adults have been defined as a target group by including specific diseases in the Personal Accident Insurance. The same applies for elderly persons. In the following, the term "elderly" shall apply for the age span of 65 - 95.

In the past, elderly persons were not very popular as a target group for a Personal Accident Insurance because the claims frequency was substantially increased. Furthermore, there were often preexisting conditions whose impact on future, possible traumatic consequences could not be judged. Various methods were introduced in order to complicate the purchase of a Personal Accident Insurance by elderly persons:

- ◆ Uninsurability after a certain age
- ◆ Increased premium for elderly persons
- ◆ Reduced benefits in the event of a claim

On the other hand, evidence in recent years shows that elderly persons will become more and more of a target group for all kinds of insurances in the years to come. Accidents occur more often with people over 65 than under 60, and the severity of the accident is much more serious. No further explanation should be necessary for the fact that the healing process is slower regarding elderly persons, and that the complication rate is increased after a trauma.

Independent of these unfavorable conditions for a Personal Accident Insurance, the demand for insurance is even higher. Actuarial data is available for a Personal Accident Insurance for advanced ages. If each higher personal accident benefit is being paid as an annuity, a further security element is integrated in the quotation.

By offering an Enhanced Personal Accident Insurance for elderly persons, and by determining those diseases which become more common in elderly people, which are well-known, and life-threatening, guidelines can be set that offer the following inclusions:

- ◆ 100 % benefits after fracturing the neck of the femur

- ◆ 100 % benefits after complete blindness
- ◆ 100 % benefits for nursing care resulting from an accident

These above-listed physical conditions easily fulfill the requirements of insurability, i.e. they provide a proper actuarial basis. The statistical material, which is available from medical publications and other surveys, permits an accurate derivation of the claims frequency.

According to surveys taken of elderly people, blindness is considered as one of the most terrible diseases. This condition results, in most cases, in helplessness, and a complete dependence on other people. If somebody is at least financially covered, there is a certain diminishment of the consequences of this condition.

Fractures of the femur occur often amongst elderly people, and are especially common among women. Very often this condition leads to a dependency on other persons lasting for months, or a temporary or permanent need of care. There is a strong financial need especially during the mobilization phase after such a fracture. Because of the relative frequency of this occurrence, all elderly persons are aware of the threatening nature of this particular fracture. This awareness results in an increased demand for this coverage.

It is also more common that an elderly person will need nursing care after an accident. Between 5 and 7 % of all cases of the Social Long Term Care Insurance in Germany are caused, more or less, by accidents. It therefore makes sense to connect the cover for care with 100 % benefits from a Personal Accident Insurance.

Each of the three above-mentioned possible claims collect the full benefits, which are paid as an income. This connection even makes it possible to introduce a combination scale instead of a scale of benefits, as is common in the classic Personal Accident Insurance in Germany. That means that, if a person starts to need care after the fracture of the neck of the femur, he would be entitled to be paid the double benefits.

Because of the relatively high mortality in the first phase after a disease occurs, the payment of annuities leads to a diminished total amount of claims and, consequently, to a relatively affordable premium level.

With these combinations, the calculated monthly annuities are obviously very high, and correspond to the actual needs in such situations.

5. Claims analysis

Regarding the above mentioned alternative products, the diagnosis of the disease is sufficient for justifying the payment of benefits. The expenses for the claims analysis are very low, because the disease has to be confirmed only through a medical report, written by a doctor or a hospital. Nevertheless there will still be problems,

because non-smokers very rarely suffer from lung cancer, and so one would have to check meticulously in particular cases. Furthermore, each individual claim requires an examination of preexisting conditions, because experiences from various countries have shown abuse.

6. Conclusion

The expansion of the classic Personal Accident Insurance to include benefits for severe diseases, according to different age groups, has led to a new product line. Claims in the classic Personal Accident Insurance used to be merely oriented towards the causality. For the new product line, however, one is more oriented towards the claims consequences, i.e. the disability or impairment.

The claims consequences in connection with the suddenness of the event are a particularly strong marketing argument. The marketing side is therefore reinforced by the new product line. Because of this expansion, the Personal Accident Insurance itself has joined the ranks of disability covers.

