Note: This version of ASOP No. 18 is no longer in effect.
It was superseded in 1999 by ASOP No. 18, Doc. No. 064.

ACTUARIAL STANDARD
OF PRACTICE
NO. 18

LONG-TERM CARE INSURANCE

Developed by the
Long-Term Care Task Force of the
Actuarial Standards Board

Adopted by the
Actuarial Standards Board
July 1991

(Doc. No. 032)

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STANDARD OF PRACTICE

July 1991

TO: Members of the American Academy of Actuaries and Other Per-sons Interested in Long-Term Care Insurance

FROM: Actuarial Standards Board (ASB)

SUBJ: Actuarial Standard of Practice No. 18: *Long-Term Care Insurance*

Background

This standard was developed by the Long-Term Care Task Force of the ASB. It was exposed in December 1990, with a comment deadline of February 15, 1991. Twenty-eight comment letters were received. Their substance and how the task force responded are summarized below. The responses are in **boldface**.

Responses to Comments on Exposure Draft

A. General Comments. There were two very general areas addressed.

1. Comment. The standard is too lengthy, containing much educa-tional material that is good but not suitable to actuarial standards of practice. The document could benefit from more background material.

   Response. The task force intentionally included both educational and background material. This is an emerging practice area. It is being practiced by actuaries with diverse backgrounds. It is felt actuaries are well served to have key information at least identified along with the standard itself. Indeed, several commentators appreciated that approach. The standard is being added to the Society of Actuaries' educa-tional syllabus.

2. Comment. Some of the warnings, alerts, advice, and general information are also relevant to other fields of actuarial practice, espe-cially new and evolving insurance products. Much of the document isn't unique to long-term care (LTC) insurance. Either it should be repeated in many standards, which would be developed for many different insurance products, or it should be said once, in an overall standard. The preference of those making this comment was the latter option.

Response. It is recognized that much of what is said here could apply to other insurance products. However, the actuarial profession doesn't yet have a general standard on areas common to all insurance products. It's not clear that the profes-sion ever will, or should, because of the impracticality of achieving and maintaining such a broad-reaching document. Its applicability as well as content would continue to change. The task force believed that it would be better, at least for now, to address such issues when a specific product, such as LTC, emerges in need of a standard.

B. Specific. There were many suggestions for wording changes, each very brief and in total too numerous to list, which were incorporated in the revisions to the exposure draft. They were very helpful in improving the document. In addition, the following specific comments are worth sepa-rate identification:

1. Comment. Loss ratios should be addressed.

   Response. This is a large subject, not at all limited to LTC insurance. In earlier drafts, the task force attempted to address the subject, but concluded that it was too large a project for this particular standard. Development of a comprehensive standard on loss ratios will be considered by the ASB.

2. Comment. Portability in group policies should be addressed.

   Response. This, and some other program or contract provisions, while perhaps important to the total insurance enter-prise, were not felt clearly or importantly enough related to an actuarial standard of practice to merit inclusion.

3. Comment. Reinsurance isn't addressed and should be.

   Response. It is felt that reinsurance is addressed to an acceptable level, to the extent it is LTC insurance. The standard needn't delve into reinsurance aspects specifically.

4. Comment. The exposed standard seemed to advocate the use of activities of daily living (ADLs), and even define which ones to use and how to interpret them, and to ignore instrumental activities of daily living (IADLs).

Response. That was not the intent. Wording changes and additions in subsections 2.15 and 5.1.1 have been made to re-spond to this comment, received in several letters.

5. Comment. The Background and Historical Issues section and other sections display "the usual actuarial diffidence."

Response. Where the task force believed it could, it replaced *may* with *will* and made similar changes; but where the future is unsure, for example, the drafters necessarily remained somewhat cautious.

6. Comment. There were some places where wording sounded too much like industry practices or standards, rather than actuarial ones.

Response. By minor wording changes in several places, the task force attempted to correct that, where appropriate. At the same time, other places were left unchanged in that regard, because giving background and environmental perspective for this relatively new field of actuarial practice was part of the purpose of the standard.

7. Comment. The standard should include a specific prohibition against hidden premium increases.

Response. An excellent suggestion. The second paragraph of section 5.2 was added.

8. Comment. The draft seems to advocate nonforfeiture benefits. The draft should discuss in greater detail versions of nonforfeiture benefits.

Response. The task force did not believe the draft advocated these benefits, nor that the subject should be covered in detail rather than merely being identified as a subject to consider.

9. Comment. There is no comment on cash flow testing.

Response. Subsection 5.2.3 was added.

The task force and the ASB thank all of those who contributed comments on the exposure draft.

The final version of the standard was adopted by the ASB on July 17, 1991.

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ACTUARIAL STANDARD OF PRACTICE NO. 18

LONG-TERM CARE INSURANCE

PREAMBLE

Section 1. Purpose, Scope, and Effective Date

1.1 Purpose—This standard provides guidance to the actuary practicing in the field of long-term care (LTC) insurance. This guidance is in three areas:

a. The standard provides assistance in understanding the nature of LTC provider and delivery systems. It is important for the actuary to understand these systems before addressing the insurance mech-anisms for LTC. Provider and delivery systems are evolving rapid-ly, driven by changing demographic characteristics, technology, governmental actions, and costs of the systems, among other envi-ronmental factors.

b. The standard identifies and describes the various insurance mech-anisms for LTC.

c. The standard describes recommended practices which should guide the actuary in the many possible actuarial activities in this field. In addition, the standard addresses many issues that deserve consid-eration, without necessarily specifying a range of acceptable practice.

1.2 Scope—This standard provides guidance in many of the areas requiring special considerations for LTC insurance. It is not intended to inhibit the development of new and appropriate actuarial practices.

It is the actuary's responsibility to apply this standard while taking into account other applicable actuarial standards of practice, regulatory or legal requirements, and sound actuarial principles.

1.3 Effective Date—This standard is effective October 17, 1991.

Section 2. Definitions

The following terms are defined for the purposes of this standard. Laws, reg-ulations, or insurance contracts may define these terms somewhat differently.

2.1 Activities of Daily Living (ADLs)—Basic functions used as measurement standards to determine levels of personal functioning capacity. A normally functioning person performs these activities without assistance, thus main-taining personal independence in everyday living. Typical ADLs include mobility, transferring (between bed and chair or wheelchair), dressing, toileting, eating, bathing, and continence.

2.2 Acute Care—Skilled, medically necessary care provided by medical and nursing professionals, the goal of which is to restore or stabilize health or ability to function.

2.3 Adult Day Care—A program designed to meet the needs of functionally or cognitively impaired adults. Services are provided in a group setting other than the client's home. Adult day care is a structured, comprehensive pro-gram based on a care plan for each individual that provides a variety of health, social, and related support services in a protective setting, for less than 24 hours a day. Among services usually included are counseling, health assessment, health education, personal care, therapies, mid-day meals, social activities, and transportation.

2.4 Care Management—The assessment of LTC needs, development of a plan of care, coordination of those services assessed to be needed, and appro-priate monitoring/follow-up of the extent and quality of the services provided.

2.5 Case Method—A claim reserve method whereby a liability is established for each open claim based on a judgment as to the expected future payments, taking into account all relevant factors, including the type or types of service used, the age and condition of the claimant, and the benefit limits.

2.6 Cognitive Impairment—Deficiency in the ability to think, perceive, reason, and/or remember, resulting in inability to take care of oneself without the assistance of or supervision by another person.

2.7 Community-Based Care—Care provided in a location other than the in-sured's personal home and other than an institution where the insured is a resident.

2.8 Community Rating—A method of rating that produces identical rates for all members of an identified pool or class, based on the expected costs for these members as a group. The expected costs for these members are pro-jected over a short period, typically the next contract year, and are shared equally among the members. The principle of equal rates for all members of the community may vary only by certain broad classifications within the pool, such as family status (single versus family coverage), and occa-sionally by wide geographic areas.

2.9 Continuing Care Retirement Community (CCRC)—A residential facility for retired people which provides stated housekeeping, social, and health care services.

2.10 Custodial Care—Care that is primarily for the purpose of meeting personal needs such as help in walking, bathing, dressing, eating, prevention of bed sores, etc. Unlike acute care, its purpose is not to restore or stabilize health or the ability to function. Custodial care can be provided by someone with-out professional medical skills or training, under the supervision of a licensed health practitioner.

2.11 Development Method—A claim reserve method whereby historical claim data, such as the number and amount of claims for the subject line of busi-ness, are recorded by period incurred and period paid. This development pattern is used to estimate the reserve for incurred claims as of the valuation date.

2.12 Expected Incurred Claims Method—A claim reserve method whereby the claims incurred within a stated period, including unreported claims, are estimated on the basis of aggregate exposure during the period. The unpaid claim reserve with respect to such claims is then estimated by deducting any portion of such claims that has been paid as of the valuation date from the estimate of total claims incurred within the period.

2.13 Home Health Care—Care received at the patient's home, such as part-time skilled nursing care, speech therapy, physical or occupational therapy, part-time services of home health aides, or help from homemakers or chore workers.

2.14 Hospice Care—Nursing care provided to the terminally ill and counseling provided to the patient and family. Hospice care can be offered in a hospice setting established for this single purpose, a nursing care facility, or in the patient's home, where nurses and social workers can visit the patient regularly.

2.15 Instrumental Activities of Daily Living (IADLs) -Functions, more complex than ADLs, that are used as measurement standards of functioning capacity. Examples include preparing meals, housekeeping, telephoning, shopping, and managing finances.

2.16 Intermediate Nursing Care—Medically supervised health-related care and services to individuals who do not require the level of care and supervision provided by hospitals or skilled nursing facilities.

2.17 Level Premiums—Insurance contract premiums that vary by issue age, or issue age band, but are designed to remain level in future contract years despite the aging of the insured individual. These may include premiums that increase in parallel with increasing benefits, or in other ways defined in the contract. The premium may or may not be guaranteed. If the premi-um is not guaranteed, though calculated as level, it may be changed if developing experience differs from the original assumptions on which it was based.

2.18 Long-Term Care (LTC)—A wide range of health and social services, which may include adult day care, custodial care, home health care, hospice care, intermediate care, respite care, and skilled nursing care. LTC does not in-clude hospital care.

2.19 Morbidity—Rates of incidence and duration of ill health and disability.

2.20 Nonforfeiture Values—Values in an insurance policy that accrue to the ben-efit of the contract owner if premiums are discontinued.

2.21 Respite Care—Temporary, short-term care for the sick or disabled, provided either in a nursing care facility or the insured's home. It allows volunteer caregivers to have a brief rest from caring for chronically ill or disabled relatives at home.

2.22 Skilled Nursing Care—Nursing and rehabilitative care that can be per-formed only by, or under the supervision of, skilled professional or tech-nical personnel. The care received is based on a physician's orders and is performed directly by or under the supervision of a registered nurse.

2.23 Tabular Method—A claim reserve method that applies a table of predetermined reserve factors to a specific inventory of open claims. For example, claim liabilities for long-term disability benefits are commonly determined by application of factors from a specific tabular valuation basis.

2.24 Underwriting—The process of identifying and classifying the potential de-gree of risk represented by a proposed insured or group of insureds.

Section 3. Background and Historical Issues

Many insurance companies have entered the LTC marketplace. Rapidly evolving new products have required actuaries to be active in the creation of new methods of funding LTC. Not only are a variety of products offered to senior citizens to cover these LTC needs, but additional methods are being applied to prefund the cost of such care at younger ages.

It is also being recognized that LTC is not just a problem of the elderly, but that there is a need for LTC insurance coverage at younger ages. Although the inci-dence of use of LTC is low at younger ages, chronic illness or accidents can result in catastrophic expenses for such care.

Cost estimates, reserving, funding methods, data collection, product design and pricing, tax issues, and regulations are areas where the actuary is involved.

Actuaries are accustomed to using current and past morbidity and other data as a basis for projecting future costs. Currently for LTC, such data come from a variety of sources and tend to be incomplete; great care and careful interpretation are needed in using such LTC data. Furthermore, there are a number of factors that could affect the reliability of projections based on currently available LTC mor-bidity data. For example:

a. The use of LTC services will tend to increase, possibly substantially, when such services are provided in an increasingly insured environment. In-creased availability of private or public LTC insurance would easily induce much higher utilization levels of LTC services than projected on the basis of currently available studies.

b. Construction of additional nursing home beds has been strictly controlled by many states in order to limit escalation of Medicaid expenses. If those limits were increased or removed entirely, nursing home utilization would tend to escalate.

c. Medical advances might reduce LTC costs by preventing or curing the maladies requiring LTC services (e.g., a cure for Alzheimer's disease). However, medical advances could also increase the life expectancy of impaired persons and enable some persons who would have died from acute diseases to survive in an

impaired condition.

d. Newly discovered diseases such as acquired immune deficiency syndrome (AIDS) could increase future LTC costs.

e. The current stigma and fear associated with nursing home confinement might erode if improved funding made these more attractive places for care.

f. The high divorce rate and trend toward smaller families will reduce the number of potential family members available to care for an impaired person, increasing the pressure on paid LTC services.

g. Similarly, as the "baby boom" generation ages and the U.S. demographic profile changes, there will be substantially fewer caregivers for substantially more persons needing care.

h. Changes in government financing for LTC are possible.

i. New LTC services may be developed.

The above items speak of the large uncertainties which surround the future nature and cost of nursing-home care and of home- or community-based LTC services. Home- and community-based LTC services may be more uncertain in terms of costs.

Section 4. Current Practices and Alternatives

Diverse methods are currently used for financing LTC, including direct payments by individuals. A number of other methods might reasonably be used in the future. It is essential for the actuary to understand differences in how these various meth-ods operate in evaluating product design, adequacy of funding level, reserving, and so on. Examples of current funding methods for LTC include the following:

a. Individual level premium LTC insurance contract

b. Group level premium LTC insurance contract

c. Renewable term LTC insurance contract, including one-year term insurance

d. Community-rated LTC insurance contract

e. LTC benefits provided through acceleration of life insurance benefits

f. LTC benefits provided in life insurance policy riders which do not affect the death benefit

g. LTC benefits provided by a continuing care retirement community (CCRC)

h. Employer plan funding employees' future LTC needs on a pooled basis

State and federal governments have been major providers of LTC financing for many years. For example, they pay approximately half the costs of nursing home stays and 15% of home health services through Medicaid. The federal government directly finances over 50% of home health care services through Medicare; also, many LTC services are provided by the Veterans Administration. The federal gov-ernment is experimenting with demonstration programs to provide LTC funding with a health maintenance organization (HMO) model, called the social HMO. In addition, there have been numerous proposals before Congress to expand the fed-eral role in the financing of LTC.

The market for LTC insurance is broad and can be viewed in terms of the various ways of accessing the market, including individual plans, group plans, association plans, and social insurance. It can also be viewed from a consideration of the changing needs of individuals over the entire life span, including the young, those who are in the active working years of their lifetime, retirees, and the elderly. Risk-bearing entities which can assist in the pooling and funding of LTC insurance include life insurers, health insurers, HMOs, pension plans, state and federal gov-ernments, and reinsurers.

There are numerous forms of LTC insurance currently being offered, with the likelihood that more will be developed in the future. Individual forms of insurance include stand-alone products and enhancements to life, disability, or annuity prod-ucts. These enhancements can be in the form of an LTC rider, a guaranteed right to buy or convert to an LTC coverage, accelerated benefits, or a benefit integrated with the underlying product.

There are also numerous group approaches to the funding of LTC insurance. These include the traditional forms of group insurance for which an individual employer or union pays the premium either as a separate plan, an additional coverage under the medical or life plan, or a part of a cafeteria/flexible benefits plan. Currently, it is more common for an employer only to sponsor a group plan and for employees to pay the premiums. Group insurance can also be used to cover association and affinity groups (religious, professional, etc.) or residents of CCRCs as a group. It is also possible to provide LTC coverage funded through a pension plan.

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Section 5. Analysis of Issues and Recommended Practices

5.1 Coverage and Plan Features—When costing, analyzing, reserving for, or reporting on insured LTC risks, the actuary should be aware of and take into consideration all relevant plan features and benefit provisions, some of which are unique to LTC or require special treatment as they relate to that risk. Considerations include the following:

5.1.1 Qualification for Benefits (Definition of Insured Event)—The ben-efit eligibility mechanisms used to qualify an insured person for payment of LTC benefits under insurance contracts and other programs are diverse and rapidly changing. Both the definition and the administration of these so-called "benefit gatekeepers" or "ben-efit qualifiers" can have a profound effect on contract or program costs. The new and rapidly evolving nature of LTC coverage re-quires the actuary to exercise considerable judgment in assessing the long-term effects of any given contractual benefit qualifier. That is, details of benefit administration may evolve significantly as claims are reviewed and adjudicated. Moreover, part of this evolution will be beyond the insurer's control, as regulations and court decisions modify the application of contract provisions.

Definitions of benefit qualifiers vary widely from contract to con-tract and among various sources of pricing data. It is imperative that the actuary recognize these variations.

LTC programs commonly involve one or more of the following benefit qualifiers:

a. Impairment of ability to perform ADLs, and in some cases IADLs—this impairment is often quantified, e.g., inability to perform two out of five or three out of six or seven ADLs

b. Cognitive impairment—organic and non-organic causes may be treated differently

c. Medical necessity as certified by a physician

d. Requirement of institutionalization or confinement in a certain

type of caregiving facility

e. Requirement of prior institutionalization to qualify for cer-tain types of benefits at lower levels of institutionalization or in a non-institutional setting (increasingly prohibited by regulations in many jurisdictions)

Insurance programs also often require that the insured incur ex-penses associated with receipt of formal LTC services.

Many coverages contain a pre-existing condition exclusion. Such a provision normally excludes coverage for an otherwise insured claim if the claim starts within a stated period after the coverage is issued and is caused by a condition which was diagnosed or treated prior to the beginning of coverage. In some cases, the pre-existing condition provision merely extends the period before benefits com-mence for the condition.

As state regulation of LTC evolves, the actuary should take into account prohibitions against excluding coverage for certain dis-eases, such as Alzheimer's.

5.1.2 Benefit Structure—The costs associated with a claim should include recognition of the nature of the promise to the insured. These costs are affected by the structure of the promise as well as care man-agement services associated with certain benefit designs. Benefits often commence only upon completion of a prescribed waiting period or satisfaction of a deductible amount, and may be limited in duration or total amount payable. Benefits are also classified as to whether they are of a scheduled benefit, reimbursement, or service type:

a. Scheduled Benefit—Benefit payments are made periodically at a specified rate, e.g., $50 per day.

b. Reimbursement—Benefit payments are made to reimburse all or a portion of expenses for covered services as they are incurred, often with a scheduled maximum.

c. Service—Services are provided through a provider network at fixed levels and amounts of care, possibly subject to pay-ment of deductibles by the insured.

5.1.3 Renewal Guarantees.—Renewal guarantees deserve special consideration because they often entail significant costs due to anti-selection. In particular, antiselection at rate renewal may seriously reduce the protection an insurer anticipates from the right to raise premiums as needed. Regulatory oversight may also have a similar effect. Other renewal features or guarantees may be subject to similar effects, as for instance, antiselection raising the cost of guaranteed continuation coverage upon termination from a group policy, or termination of the group policy itself.

5.1.4 Nonforfeiture Values—Nonforfeiture values require higher premi-ums, have important potential interaction with the voluntary ter-mination assumption in contract pricing, and create potential for antiselection. Types of nonforfeiture values may include the fol-lowing contractually scheduled benefits:

a. Cash values

b. Reduced paid-up insurance—i.e., reduction in amount and/or duration of benefits

c. Coverage for an extended term with no reduction of benefits, but with claim required to be established within a prescribed period

5.1.5 Other Features—The presence and exact terms of other contract features should also be considered. Such features include the following:

a. Benefit increase feature—protection against potential increases in the costs of LTC services can be provided by automatic periodic benefit increases with or without parallel automatic increases in premiums, or periodic purchases of additional coverage on a guaranteed-issue basis at attained-age premiums

b. Premium waiver—coverage may be continued without further payment of premiums at some defined time after a claim has been established

c. Return of premiums paid or some percentage of them, perhaps reduced by LTC benefits paid—upon death and/or upon voluntary termination of coverage, perhaps before attainment of

a certain age or upon attainment of a certain age or policy duration

d. Nonguaranteed cash values, reflecting amounts held under a group contract which are not attributable to current and projected costs of established claims or to incurred but not reported claims

5.2 Actuarial Assumptions and Sensitivity Testing—Actuarial assumptions in combination should reflect the actuary's best judgment of future events affecting the cost and incidence of LTC benefits and the financial position of the entity promising such benefits. In setting actuarial assumptions, the actuary should consider available experience data (see subsection 5.3) and expected future changes in experience over the lifetime of the benefit promise. Appropriate provisions for adverse deviation should be incor-porated. The actuary should review assumptions regularly as experience develops.

Experience developing in ways significantly different from that assumed in pricing may legitimately require future changes in premium scales; but in setting premiums initially, the actuary should not rely on that possibility to use assumptions which are unduly optimistic. Neither should the assump-tions be pessimistic, yielding excessive premiums. Nor in any event should the actuary establish pricing assumptions with planned hidden future pre-mium increases in mind. If premiums are described as level, guaranteed re-newable, and applicable for the lifetime of the insured—as is typically the case—the actuary should use assumptions consistent with that description.

The assumptions used should also be consistent with each other and with the purpose of the actuarial calculation. For example, assumptions used in pricing should be consistent with reasonable sales objectives, investment strategy, and pricing and/or dividend philosophy.

5.2.1 Specific Assumptions—In performing actuarial calculations with respect to the cost and/or funding of LTC benefits, the actuary should consider the applicability of the demographic and financial assumptions described below. Additional assumptions may be necessary in any given situation.

a. Volume and Distribution of Coverage—The volume of LTC insurance expected to be sold and its distribution by risk classification may affect the total cost of the coverage and the viability of the business or funding plan.

b. Morbidity—Morbidity assumptions should be based upon an analysis of the various types of LTC claims (nursing home, home health, etc.), the definition of an insured event, the type of marketing program, the impact of underwriting and of care management programs, assumptions regarding transfers between different levels of care, and effects of geographic variations where appropriate (see subsection 5.3). The morbidity assumptions should generally reflect the cost and incidence of claims.

c. Future Trends in LTC Costs—This assumption will be affected by inflation, including that fueled by the existence of an insured environment. The actuary should consider the economic forces involved in each aspect of LTC to be covered by the plan (e.g., supply of and demand for nursing homes, home health care).

d. LTC Incidence Rates—This assumption would reflect analysis of the possible effects of induced demand for ser-vices because of the presence of LTC insurance, the impact of the integration of LTC benefits with other insurance ben-efits, and the potential availability of other insurance cov-erage. The actuary should take into account current utilization patterns and anticipated future changes in these patterns.

e. Mortality—The effect of mortality on both policy termina-tion rates and claim termination rates should be taken into consideration. In determining best-judgment mortality, the actuary should consider the long-term nature of the coverage and the changing cost of benefits with age and time. In addition, the expected future trends in mortality should be considered.

f. Time Value of Money—Recognition of the time value of money is fundamental to actuarial science, and is par-ticularly appropriate when performing actuarial calculations for any long-term contract. The investment rate of return used to reflect the time value of money should be consistent with the expected rate of return on invested assets backing the LTC benefit promise.

g. Voluntary Contract Terminations—The voluntary contract termination assumption will depend on the effect of many factors, including possibly the method of product marketing and

distribution, quality of the product, company phil-osophy, price competitiveness of the product, and the pres-ence (or absence) of nonforfeiture benefits. Because of the sharply increasing cost of LTC benefits at higher ages, the actuary should take care not to overestimate ultimate con-tract terminations.

h. Expenses—The actual cost of marketing and administering LTC coverage will vary greatly on the basis of benefits of-fered, marketing approach, underwriting criteria, demo-graphics of the insured, and claim administration procedures.

5.2.2 Sensitivity Testing—In addition to using professional judgment in selecting actuarial assumptions, the actuary should state in any report to management or regulators that the results depend on the assumptions used and that actual experience is likely to differ from expected. A sensitivity analysis of reasonable variations from ex-pected experience should be performed. Where the data used in setting actuarial assumptions have limited statistical credibility, greater sensitivity testing is indicated.

Some of the factors that can cause significant potential variation include investment return assumptions, voluntary contract termina-tion assumptions, the effect of induced utilization, changes in mor-tality (both active lives and claimants), and changes in LTC costs. The actuary should disclose the potential variability in critical as-sumptions and their long-range effects on the financial condition of the company or funding entity. The actuary should give special attention to the ability of the company or fund to meet its benefit promises.

5.2.3 Cash Flow Testing—Level premium funding and the typically long-deferred nature of claim costs will result in different time incidence of premium and claim cash flows. Because of this, the actuary should consider cash flow testing of the LTC insurance enterprise.

5.3 Availability and Credibility of Data—LTC policies and benefits vary widely from insurer to insurer. The benefits and benefit entitlement provisions among different contracts are not uniform. Administrative practices, such as underwriting and adjudicating claims, may also vary. LTC insurance provisions are being expanded to include new benefits and designs. The above variations may have significant effects on LTC insurance claim costs.

Industry and/or population experience may not be widely available, and may not be appropriate to any individual insurer. Statistics which include such items as admittance rates into nursing homes and average lengths of confinements may be available for government social programs such as Medicaid, individual nursing homes, and other non-insured situations. The actuary should exercise care in assessing and analyzing published expe-rience for its appropriateness, par-ticularly when non-insured experience is considered.

5.3.1 Aspects to Consider—Considerable judgment is necessary in pro-jecting claim costs which are appropriate for the risk. The deri-vation of the claim costs should be based on relevant experience, to the extent it is available, and informed judgment. The actuary is responsible for reviewing the following considerations when esti-mating claim costs for LTC insurance:

a. The intended use of the data (e.g., pricing, valuation)

b. Availability and appropriateness of experience data from population, industry, company, and other records

c. Trends in LTC costs

d. Benefit provisions

e. Company practices, especially in underwriting and claims administration

f. Existing or pending laws or regulations

g. Geographic location

h. Method of distribution by company to consumers

Appropriate provision should be made for fluctuations and uncer-tainty with respect to the data.

5.3.2 Tracking Experience—The actuary is responsible for bringing to management's attention the importance of establishing and main-taining a record-keeping mechanism to capture and monitor the emerging experience. Data collection systems should be designed with the goal of producing reliable and unambiguous information.

5.4 Underwriting—In evaluating the effect of underwriting in determining costs of LTC programs, the actuary should be familiar with applicable under-writing practices. The actuary should take into account the effect on morbidity of the basis used for determining the insurability and risk classi-fication of the prospective insureds, and specifically those aspects of the underwriting process that are unique to this line of insurance.

5.4.1 Criteria—An applicant's age at issue, medical history, functional ability, cognitive status, and personal environment may be pertinent factors in assigning the applicant to the appropriate risk class.

5.5 Risk Classification—LTC insurance is a relatively new and rapidly evolving coverage. For most LTC programs, there is a limited amount of insured experience to provide guidance in determining risk classes. In this environment, the actuary should regularly review such classifications to determine if the ratings are appropriate.

For guidance in this area, the actuary should consult Actuarial Standard of Practice No. 12, *Concerning Risk Classification*.

5.6 Claim Liabilities—Actuarial Standard of Practice No. 5, *Incurred Health Claim Liabilities*, gives general guidance to the actuary in determining lia-bilities for incurred health claims.

5.6.1 General Considerations—The actuary should be aware of the need for the claim reserve to provide for all future payments on a given inventory of open claims, along with all unreported claims as of the valuation date. No matter how logical a method might seem or how consistently applied, the method is adequate only if it makes suffi-cient provision for the actual claim inventory plus unreported claims.

Actuaries choosing a method (or combination of methods) for establishing a claim liability should be aware of the general effect of experience deviations in claim payment patterns on the adequacy of the liabilities calculated by the method chosen. The effect of developing experience should be considered when establishing the appropriate claim liability. Examples of possibly developing ex-perience items which should be considered are trends in claim termination rates due to morbidity or mortality changes for those on LTC claim status, cost-shifting effects or level-of-care definition development caused by state or federal regulation, and trends in expense levels if benefits are provided

on an expense-incurred basis.

There are large liabilities per claim for this type of coverage. The actuary should be aware that using aggregate statistics with regard to lag patterns or termination rates may result in claim reserves that are too high or too low for a given inventory of open claims.

5.6.2 Methods—One or more of the following methods used for other types of accident and health insurance may be used to establish claim reserves for LTC claims:

a. Tabular Methods—Tabular methods can usually be fairly easily applied to value reported claims. Assumed claim termination rates must be available to calculate claim re-serve factors. The direct attribution of reserves to specific claims makes it fairly straightforward to analyze the ade-quacy of total liabilities. Tabular methods have the advan-tage of automatically reflecting the actual distribution of benefit limits among the open claims. Since tabular reserve factors are being applied to an actual current inventory of open claims, their adequacy is entirely dependent on devia-tions in future experience from the prospective assumptions used. Tabular factors, depending on their method of con-struction, may be difficult to adjust to reflect trends or changes in expected claim termination rates from the rates originally used to calculate the tabular factors. When tabular methods are used for reported open claims, the liability for incurred but unreported claims has to be evaluated and calculated separately, using another method.

b. Development Methods—Development methods should be used with caution. To be useful for LTC claims, development methods often need to be refined and adjusted to account for the fact that only an incomplete payment pattern history (relative to the length of the longest possible claim) will be available. If development factors are not maintained and applied separately by elimination period and benefit limit, reserves may not appropriately reflect changes in the distribution of these characteristics among the actual inven-tory of open claims compared to the distribution present in the historical claim payment pattern. Experience deviations or trends in claim termination rates may be less quickly recognized in development

methods than in tabular meth-ods. Illogical fluctuations can result from irregularities in the claim payment pattern, such as abnormal backlogs due to holidays, personnel shortages, or irregular submission of proofs of loss on continuing claims. Development methods, however, can incorporate the calculation of incurred but un-reported claims, if appropriate consideration is given to changes in claim payment backlog and trends in exposure and anticipated experience.

c. Case Method—When an insurer has an extremely small volume of claims, it may be appropriate to estimate the reported claim liability by the case method, at least as a test of any other method to be used. When using the case meth-od as a test of another method, the actuary should consider which method more appropriately provides for the prospec-tive payments on the actual inventory of open claims. As soon as the volume of pending claims reaches a level high enough for statistical credibility, one of the other methods should be followed. In judging the appropriate volume level, the actuary should keep in mind the high average size of LTC reserves per claim.

d. Expected Incurred Claims Method—This method is often appropriate in the following situations:

1. When the block of business to be valued is too small or too new for any credible data to have been developed for use in constructing tabular or develop-ment factors.

2. In situations where a sufficient number of claims have been reported and/or where a sufficient volume of claims have been paid with respect to the older portion of the valuation period, but where the most recent portion of the period does not show a suf-ficient number or volume of claims for reliable esti-mation using other methods. Typically, this portion of the period will be the three to six months im-mediately preceding the valuation date.

When this method is used, careful attention should be given to detecting emerging trends that may affect the expected incurred claims used.

5.6.3 Testing of Claims Development—Whichever method is chosen, the development of claim liabilities should be tested as necessary. This entails re-evaluation of the claim liabilities as of given valuation dates by periodic tests of the originally established claim liability against the discounted value of claim payments made after the valuation date on claims incurred before the valuation date, in-creased by the discounted value of the remaining claim liability as of the test date for claims incurred before the valuation date. The actuary should also be aware that such a test may falsely indicate a sufficiency in claim reserves if the claim reserves at the end of the testing period are deficient.

5.6.4 Time Value of Money—It is appropriate to consider the time value of money in establishing the claim liability.

5.7 Contract Reserves—The need for contract reserves for guaranteed re-newable health insurance funded by a level premium is well established. Many states have promulgated statutory minimum standards for specific categories of guaranteed renewable health insurance, e.g., disability income or daily hospital.

The issue of appropriate determination of contract reserves for LTC in-surance is particularly important because the combination of level premium funding and steep slope of LTC morbidity by increasing age requires contract reserves that are generally higher (compared to the net premium) than for other health coverages.

5.7.1 Stand-Alone Coverages—Contract reserves should be held for all stand-alone LTC coverages funded by a level premium payment pattern.

5.7.2 Acceleration of Benefits—Appropriate contract reserves should be held to account for costs of coverage provided through the acceleration of benefits under group or individual life policies or riders to such policies.

5.7.3 Claim Cost Assumptions—Claim cost assumptions should be appropriate to the benefits being valued and should make adequate provision for claim administrative expenses. The effect on claim costs of elimination periods and benefits limits should be carefully evaluated. Costs associated with ancillary benefits such as respite care and waiver

of premium should be carefully considered in set-ting overall claim costs. If morbidity for reserve purposes is derived from a company's experience, it is appropriate to make provision for adverse deviation.

5.7.4 GAAP Assumptions—GAAP assumptions for contract reserves should be chosen with due regard to Actuarial Standard of Practice No. 10, *Methods and Assumptions for Use in Stock Life Insurance Company Financial Statements Prepared in Accordance with GAAP*. In choosing GAAP assumptions for reserves, the actuary should have determined by appropriate sensitivity testing how varia-tions in assumptions affect the overall level of conservatism in the reserves.

5.7.5 Reserve Standards—In setting statutory reserves, the actuary should be familiar with the reserve standards as described in the National Association of Insurance Commissioners' *Long-Term Care In-surance Model Regulation* and in regulations of any states which govern the specific insurance in question.

5.8 Taxes—The actuary should be informed about the evolving tax aspects of LTC insurance.

Section 6. Communications and Disclosures

6.1 Documentation—Appropriate records, worksheets, and other docu-mentation of the actuary's work should be maintained by the actuary and retained for a reasonable period of time. Documentation should be sufficient for another actuary practicing in the same field to evaluate the work. The documentation should describe clearly the sources of data, material assumptions, and methods.

6.2 Communications—Any actuarial communications, including but not limited to actuarial reports, statements of actuarial opinion, and statements of actuarial review, are subject to the *Guides and Interpretative Opinions as to Professional Conduct*.

6.3 Company Management Practices—The actuary may be uniquely qualified to identify company practices and experience that need attention and/or revision. The actuary should bring to the attention of company management any perceived problems with company practices and experience relating to or having an impact on pricing, reserving, and the gathering and monitoring of emerging claims, lapse, and other experience. This is especially impor-tant because of the new and

evolving nature of LTC insurance programs.

6.4 References within Standard—This standard refers to needed or desirable communications between the actuary practicing in LTC insurance and various users of those services or providers of information, data, and insurance programs. The actuary should be especially mindful of those communications. These include the communications called for in:

a. subsection 5.2.2 (Sensitivity Testing)

b. subsection 5.3.2 (Tracking Experience)

6.5 Deviation from Standard—An actuary who uses a procedure which differs from this standard must include, in any actuarial communication disclosing the result of the procedure, an appropriate and explicit statement with respect to the nature, rationale, and effect of such use.