ACTUARIAL STANDARDS BOARD

• EXPOSURE DRAFT •

Proposed Revision of
Actuarial Standard
of Practice
No. 3

Continuing Care Retirement Communities and At Home Programs

Comment Deadline:
February 1, 2021

Developed by the
ASOP No. 3 Task Force of the
Health Committee of the
Actuarial Standards Board

Approved by the
Actuarial Standards Board
November 2020

TABLE OF CONTENTS

Transmittal Memorandum v

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date 1
1.1 Purpose 1
1.2 Scope 1
1.3 Cross References 1
1.4 Effective Date 1

Section 2. Definitions 2
2.1 Actuarial Balance Sheet 2
2.2 Actuarial Present Value 2
2.3 Additional Fee 2
2.4 Advance Fee 2
2.5 At Home Program 2
2.6 Cash and Investment Balance 2
2.7 Cohort of New Residents or New Members 2
2.8 Continuing Care Retirement Community (CCRC) 2
2.9 Fee Structure 2
2.10 Health Care Guarantee 3
2.11 Health Center 3
2.12 Independent Living Unit 3
2.13 Levels of Care 3
2.14 Living Unit 3
2.15 Member 3
2.16 Membership Agreement 3
2.17 Morbidity 3
2.18 Non-Resident 3
2.19 Periodic Fee 3
2.20 Permanent Transfer 3
2.21 Physical Property 4
2.22 Population Projection 4
2.23 Refund Guarantee 4
2.24 Residency Agreement 4
2.25 Resident 4
2.26 Temporary Transfer 4
2.27 Trend 4
2.28 Valuation Date 4
2.29 Withdrawal 4

Section 3. Analysis of Issues and Recommended Practices 4

3.1 Introduction 4
3.2 Determination of Satisfactory Actuarial Balance 4
3.2.1 Condition 1: Adequate Resources for Current Residents or Members 5
3.2.2 Condition 2: Adequate Fee Structure for a Cohort of New Residents or New Members 5
3.2.3 Condition 3: Positive Projected Cash and Investment Balances 5
3.3 Actuarial Balance Sheet 6
3.3.1 Closed-Group Projection of Current Residents or Members 6
3.3.2 Assets 6
3.3.3 Liabilities 6
3.4 Cohort Pricing Analysis 6
3.5 Cash Flow Projections 7
3.6 Actuarial Asset and Liability Values 7
3.6.1 Future Periodic Fees 7
3.6.2 Future Additional Fees and Third Party Payments 8
3.6.3 Physical Property for Assets Currently in Service 8
3.6.4 Future Use of Physical Property 8
3.6.5 Future Operating Expenses 8
3.6.6 Future Refunds Due to Refund Guarantees 9
3.6.7 Long-Term Debt 9
3.7 Selection of Actuarial Assumptions 9
3.7.1 Mortality, Morbidity, and Withdrawal Assumptions 9
3.7.2 Trend Assumptions for Fees and Expenses 10
3.7.3 Investment Rate and Discount Rate Assumptions 10
3.7.4 Revenue and Expense Allocation Assumptions 10
3.7.5 Going-Concern Assumption 11
3.7.6 Reasonableness of Assumptions 11
3.8 Benevolence Funds and Financial Assistance Subsidies 11
3.9 For-Profit CCRCs or At Home Programs 12
3.10 Equity or Cooperative CCRCs or At Home Programs 12
3.11 Additional Considerations Affecting CCRC or At Home Program Finances 12
3.12 External Restrictions 13
3.13 Reliance on Data or Other Information Supplied by Others 13
3.14 Documentation 13

Section 4. Communications and Disclosures 13
4.1 Required Disclosures in an Actuarial Report 13
4.2 Assignments Involving an Opinion on Satisfactory Actuarial Balance 14
4.2 Additional Disclosures in an Actuarial Report 15

APPENDIX

Appendix—Background and Current Practices 16

Background 16
Current Practices 16
Illustrative Capital Expense Charge Development and Physical Property Valucation 16
Illustrative Formulas for Expensing and Valuing Physical Property 19

ASOP No. 3—EXPOSURE DRAFT—November 2020

November 2020

TO: Members of Actuarial Organizations Governed by the Standards of Practice of the Actuarial Standards Board and Other Persons Interested in Continuing Care Retirement Communities and At Home Programs

FROM: Actuarial Standards Board (ASB)

SUBJ: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 3

This document contains the exposure draft of a revision of ASOP No. 3, now titled *Continuing Care Retirement Communities and At Home Programs*.

Please review this exposure draft and give the ASB the benefit of your comments and suggestions. Each written comment letter or email received by the comment deadline will receive appropriate consideration by the drafting committee and the ASB.

The ASB requests comments be provided using the Comments Template that can be found here and submitted electronically to comments@actuary.org. Include the phrase "ASB COMMENTS" in the subject line of your message. Please note: Any message not containing this exact phrase in the subject line will be deleted by our system's spam filter. Also, please indicate in the template whether your comments are being submitted on your own behalf or on behalf of a company or organization.

The ASB posts all signed comments received on its website to encourage transparency and dialogue. Comments received after the deadline may not be considered. Anonymous comments will not be considered by the ASB nor posted on the website. Comments will be posted in the order that they are received. The ASB disclaims any responsibility for the content of the comments, which are solely the responsibility of those who submit them.

For more information on the exposure process, please see the ASB Procedures Manual.

Deadline for receipt of responses in the ASB office: **February 1, 2021**

History of the Standard

In 1987, the Interim Actuarial Standards Board adopted a document titled *Relating to Continuing Care Retirement Communities (CCRCs)*. In 1990, the ASB revised and reformatted ASOP No. 3, *Relating to Continuing Care Retirement Communities.* In 1994, the ASB adopted another revision titled *Practices Relating to Continuing Care Retirement Communities*. In 2008, the standard was revised to reflect current, generally accepted actuarial practice and to adopt the updated format for standards. The industry also refers to Continuing Care Retirement

Communities (CCRCs) as Life Plan Communities (LPCs), and for the purpose of this standard CCRCs refers to both CCRCs and LPCs.

Within CCRCs, the provision of benefits for non-residents through At Home Programs has emerged as a new area of practice. Various terms are used in the industry to describe At Home Programs, which are most commonly known as Continuing Care At Home and Lifecare At Home Programs. This ASOP addresses actuarial practice for both CCRCs and At Home Programs. For the purposes of this ASOP, the term "CCRC" reflects the traditional industry product and "At Home Program" reflects non-residential benefit programs offered to members of the program.

CCRCs arose from a desire of individuals to have both housing and long-term care provided by the same organization. Over time, the CCRC model has evolved, with contracts providing for residents who have delayed entry to a CCRC as well as residents who may have never intended to move into a CCRC. At Home Programs cover members who do not intend to move into the CCRC. Many states have developed regulations to address both traditional CCRCs and At Home Programs under the CCRC umbrella. Several states limit At Home Programs to the confines of an existing CCRC.

Notable Changes from the Existing ASOP

Notable changes made to the existing standard reflected in the exposure draft are summarized below. Additional changes were made to improve readability, clarity, or consistency.

1. The revised ASOP addresses actuarial practice for At Home Programs that are not regulated as an insurance entity.

2. The revised ASOP includes new disclosure requirements that the ASB believes are appropriate and are intended to enhance the quality of actuarial communications regarding CCRCs and At Home Programs.

Request for Comments

The ASB appreciates comments and suggestions on all areas of this proposed standard. Rationale and recommended wording for any suggested changes would be helpful.

The ASB voted in November 2020 to approve this exposure draft.

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The Actuarial Standards Board (ASB) sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice (ASOPs). These ASOPs describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

PROPOSED REVSION OF ACTUARIAL STANDARD OF PRACTICE NO. 3

CONTINUING CARE RETIREMENT COMMUNITIES AND AT HOME PROGRAMS

STANDARD OF PRACTICE

Section 1. Purpose, Scope, Cross References, and Effective Date

1.1 Purpose—This actuarial standard of practice (ASOP or standard) provides guidance to actuaries when performing actuarial services with respect to **Continuing Care Retirement Communities (CCRCs**), also known as Life Plan Communities (LPCs), or **At Home Programs** that are not regulated as insurance entities.

1.2 Scope—This standard applies to actuaries when performing actuarial services, including giving advice, in connection with **CCRCs** (including nonprofit and for-profit entities) or **At Home Programs** that are not regulated as insurance entities. These actuarial services may be performed for owners, operators, financing entities, or current or prospective **residents** or **members**, as well as for other professionals or regulatory bodies.

This standard does not apply to actuaries when performing actuarial services with respect to **At Home Programs** regulated as insurance entities. When performing actuarial services with respect to such organizations, the actuary should review ASOP No. 18, *Long-Term Care Insurance*, for applicability.

If the actuary determines that the guidance in this ASOP conflicts with a cross-practice ASOP (applies to all practice areas), this ASOP governs.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law (statutes, regulations, and other legally binding authority), or for any other reason the actuary deems appropriate, the actuary should refer to section 4. If a conflict exists between this standard and applicable law, the actuary should comply with applicable law.

1.3 Cross References— When this standard refers to the provisions of other documents, the reference includes the referenced documents as they may be amended or restated in the future, and any successor to them, by whatever name called. If any amended or restated document differs materially from the originally referenced document, the actuary should consider the guidance in this standard to the extent it is applicable and appropriate.

1.4 Effective Date—This standard is effective for work performed on or after four months after adoption by the Actuarial Standards Board.

Section 2. Definitions

The terms below are defined for use in this actuarial standard of practice and appear in bold throughout the ASOP.

2.1 Actuarial Balance Sheet—A measure of the assets and liabilities, as of the **valuation date**, associated with current **residents** or current **members**.

2.2 Actuarial Present Value—The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions with regard to future events, observations of market or other valuation data, or a combination of assumptions and observations.

2.3 Additional Fee—An amount that may be payable by a **resident** or **member**, in accordance with a **residency agreement** or **membership agreement**, for services made available but not covered by the **advance fee** and the **periodic fees**. Examples of **additional fees** include fees for guest meals, additional meals, barber/beauty shop, use of a carport, and non-covered health care services.

2.4 Advance Fee—An amount payable by a **resident** at the inception of a **residency agreement** or by a **member** at the inception of a **membership agreement**. The **advance fee** is usually specified in the **residency agreement** or **membership agreement** and is usually payable prior to occupancy of the residence or receipt of benefits.

2.5 At Home Program—An organization that provides social and health care services in return for some combination of an **advance fee**, **periodic fees**, and **additional fees**. **At Home Programs** differ from **CCRCs** in that they do not provide a direct **independent living unit** for **members**.

2.6 Cash and Investment Balance—The value of cash, cash equivalents, and marketable securities (historically referred to as "cash balance" by industry organizations). This excludes the value of the **physical property** assets.

2.7 Cohort of New Residents or New Members—A hypothetical group of new **residents** or **members** assumed to enter a **CCRC** or **At Home Program** over a specified period of time and assumed to have certain demographic characteristics.

2.8 Continuing Care Retirement Community (CCRC)—An organization that provides residential housing and stated housekeeping, social, and health care services in return for some combination of an **advance fee**, **periodic fees**, and **additional fees**. **CCRCs** are also known as Life Plan Communities (LPCs).

2.9 Fee Structure—A combination of fees that includes **advance fees** and **periodic fees**, and may include **additional fees**.

2.10 Health Care Guarantee—A clause in a **residency agreement** or **membership agreement** guaranteeing access to health care and defining the type of health care services to be provided to the **resident** or **member**. These health care services may be offered with or without adjustments to the **periodic fees**.

2.11 Health Center—A facility associated with a **CCRC** or **At Home Program** where health care is provided to **residents** or **members** in accordance with the **residency agreement** or **membership agreement**. The facility typically includes some combination of assisted living, memory care, and nursing care units. **Non-residents** may also live in the facility.

2.12 Independent Living Unit—Living quarters designed for **residents** capable of living independently. A **resident** could receive home health care in the **independent living unit**, but a **resident** who needs full-time health care on either a temporary or permanent basis is normally transferred to the **health center**.

2.13 Level(s) of Care—Varying degrees of care based on a **resident's** or **member's** health status. Typical **levels of care** include independent living, assisted living, nursing care, and memory care. The **levels of care** may be dictated by state licensure.

2.14 Living Unit—The various living quarters of a **CCRC**, including **independent living units** and **health center** units.

2.15 Member—A person who has signed a **membership agreement** with an **At Home Program**.

2.16 Membership Agreement—A contract between one or more **members** and an **At Home Program** that describes the services to be provided and the obligations of the parties. The contract is usually of long duration and may be for the life of each **member**. The contract describes the **health care guarantee** and any **refund guarantee**.

2.17 Morbidity—The incurral of an illness or disability requiring the transfer to a different **level of care**. The **permanent transfer** rates and the **temporary transfer** rates together comprise the rate of **morbidity**.

2.18 Non-Resident—A person living in the **CCRC** who has signed an agreement without a **health care guarantee** and without a **refund guarantee**. **Non-residents** normally pay for all health care services received on a fee for service basis.

2.19 Periodic Fee—Amounts payable periodically (usually monthly) by a **resident** or **member**. The amounts are typically adjusted from time to time to reflect changes in operating costs.

2.20 Permanent Transfer—A move from one **level of care** to another **level of care** without expectation of returning to the former **level of care**.

2.21 Physical Property—Physical assets, such as land, building, furniture, fixtures, or equipment. These assets, excluding land, are assumed to depreciate over their respective lifetimes. These assets are also referred to as the fixed assets.

2.22 Population Projection—An estimate of the expected number of **resident**s or **members** at various future times.

2.23 Refund Guarantee—A clause in a **residency agreement** or **membership agreement** that provides for a refund of any portion of the **advance fee** upon termination of the agreement.

2.24 Residency Agreement—A contract between one or more **residents** and a **CCRC** that describes the services to be provided and the obligations of the parties. The contract is usually of long duration and may be for the life of each **resident**. The contract describes the **health care guarantee** and any **refund guarantee**.

2.25 Resident—A person who has signed a **residency agreement**.

2.26 Temporary Transfer—A move from one **level of care** to another **level of care** with the expectation of returning to the former **level of care**.

2.27 Trend—Measure of rates of change, over time, that affects revenues, costs, or actuarial assumptions.

2.28 Valuation Date—The date as of which the assets and liabilities of the **CCRC** or **At Home Program** are estimated.

2.29 Withdrawal—The termination of a **residency agreement** or **membership agreement** by the **resident** or **member** for reasons other than death.

Section 3. Analysis of Issues and Recommended Practices

3.1 Introduction—When providing actuarial services related to **CCRCs** or **At Home Programs**, the actuary should take into account the relevant financial items associated with the organizations, current **residents** or **members**, new **residents** or **members**, and **levels of care** provided, as well as relevant **residency agreement** or **membership agreement** provisions and applicable law. The actuary should use methods and assumptions that are, in the actuary's professional judgment, appropriate considering the scope and purpose of the assignment.

3.2 Determination of Satisfactory Actuarial Balance—In determining whether the **CCRC** or **At Home Program** is in satisfactory actuarial balance as of the **valuation date**, the actuary should evaluate whether the **CCRC** or **At Home Program** meets all of the following three conditions:

3.2.1 Condition 1: Adequate Resources for Current Residents or Members—The resources available to current **residents** or **members** include any existing net assets plus the **actuarial present value** of future revenues, such as **periodic fees**, **additional fees**, and third party payments (for example, Medicare, Medicaid, and long-term care insurance).

The actuary may consider these resources adequate if they are greater than or equal to any existing liabilities for the current **residents** or **members** plus the **actuarial present value** of the expected costs associated with the contractual obligations to current **residents** or **members**. The actuary should determine if this condition is satisfied using the **actuarial balance sheet** (see section 3.3).

3.2.2 Condition 2: Adequate Fee Structure for a Cohort of New Residents or New Members—For a **cohort of new residents or new members**, the expected fees are the sum of the **advance fees** paid plus the **actuarial present value** of the new **residents**' or new **members**' expected future revenues, such as **periodic fees**, **additional fees**, and third party payments (for example, Medicare, Medicaid, and long-term care insurance).

The actuary may consider the **fee structure** adequate if the expected fees are greater than or equal to the **actuarial present value** of the costs associated with the contractual obligations determined at an appropriate occupancy or membership date for the cohort. The actuary should determine if this condition is satisfied using the cohort pricing analysis (see section 3.4).

3.2.3 Condition 3: Positive Projected Cash and Investment Balances—The projection of **cash and investment balance**s over the projection period should include revenue and expenses from all known sources, including current **residents** or **members**, new **residents** or **members**, and any **non-residents**.

The actuary should choose a projection period that extends to a point at which, in the actuary's professional judgment, the use of a longer period would not materially affect the results and conclusions.

The actuary may consider the **cash and investment balances** adequate if these balances are positive in each projection year. The actuary should determine whether this condition is satisfied using the cash flow projection (see section 3.5).

In the event the **CCRC** or **At Home Program** fails to meet any of the three conditions as specified above, the actuary should consult with the organization to address possible corrective actions to achieve satisfactory actuarial balance.

For a proposed or start-up **CCRC** or **At Home Program**, the actuary should evaluate conditions 1 and 2 using a future **valuation date** and should begin evaluating condition 3 as of a future date. The actuary should select such future dates that are consistent with the end of the start-up period. For example, the actuary may evaluate these conditions using

the earlier of a short-term period (such as three to five years) after opening or when the **CCRC** or **At Home Program** reaches the targeted number of **residents** or **members**.

3.3 Actuarial Balance Sheet—The actuary should develop the **actuarial balance sheet** according to the following:

3.3.1 Closed-Group Projection of Current Residents or Members—The actuary should use a **population projection** that is performed solely with respect to current **residents** or **members** on the **valuation date**. The actuary should project the surviving **residents**' or **members'** movements through various **levels of care** until contract termination. This projection excludes new **residents**, new **members**, and any **non-residents**.

3.3.2 Assets—The actuary should estimate the **actuarial present value** of each of the following: the future **periodic fees** (described in section 3.6.1), the future **additional fees** and third party payments (described in section 3.6.2), and the **physical property** for assets currently in service (described in section 3.6.3).

The actuary should reflect in the **actuarial balance sheet** other assets from the accounting balance sheet as appropriate, in the actuary's professional judgment. These assets generally include such items as **cash and investment balances**, current receivables, and other items not specifically reflected in the above guidance.

3.3.3 Liabilities—The actuary should estimate the **actuarial present value** of each of the following: the future use of **physical property** (described in section 3.6.4), the future operating expenses (described in section 3.6.5), the future refunds due to **refund guarantees** (described in section 3.6.6), and the long-term debt (described in section 3.6.7).

The actuary should reflect in the **actuarial balance sheet** other liabilities from the accounting balance sheet as appropriate, in the actuary's professional judgment. These liabilities generally include such items as current payables, prepaid **resident** or **member** deposits, fees paid in advance, short-term debt obligations, and other items not specifically reflected in the above guidance.

3.4 Cohort Pricing Analysis—The actuary should develop the cohort pricing analysis based on the **actuarial present value** of revenues and expenses associated with a cohort of new **residents** or **members**.

The actuary should use a **population projection** that is performed solely with respect to a **cohort of new residents or new members**. The actuary should project surviving **resident** or **member** movements through various **levels of care** until contract termination. This **population projection** excludes any **non-residents**.

The revenues include the **advance fees**, the **actuarial present value** of future **periodic fees** (described in section 3.6.1), and the **actuarial present value** of future **additional fees** and third party payments (described in section 3.6.2).

The expenses include the **actuarial present value** of each of the following: the future use of **physical property** (described in section 3.6.4), the future operating expenses (described in section 3.6.5), and the future refunds due to **refund guarantees** (described in section 3.6.6).

The actuary may consider, subject to disclosure, the use of expense levels consistent with the targeted number of **residents** or **members** when a material change in the population, such as growth resulting from new construction or expansion, is expected.

3.5 Cash Flow Projections—The actuary should perform cash flow projections using an open group **population projection** that includes existing **residents** or **members** on the **valuation date** together with expected future **residents** or **members** consistent with assumed occupancy and membership levels. For **CCRCs**, the actuary should include **non-residents** in this **population projection** that use unoccupied units or beds in various **levels of care** consistent with assumed occupancy levels.

The actuary should select assumptions in the cash flow projections that are consistent with those used in the development of the **actuarial balance sheet** and cohort pricing analysis (see sections 3.3 and 3.4).

The actuary should reflect revenues from all known sources (such as **advance fees**, **periodic fees**, **additional fees**, payments from **non-residents**, third party payments, and investment income). The actuary should reflect expenses from all known sources (such as operating expenses, capital expenditures, debt interest and principal payments, any cost of using an offsite health facility, and refunds due to **refund guarantees**).

In the cash flow projection, the actuary should develop the **cash and investment balances** at the beginning and end of each projection year.

The actuary should refer to the guidance in ASOP No. 7, *Analysis of Life, Health, or Property/Casualty Insurer Cash Flows*, when choosing assumptions for cash flow projections.

3.6 Actuarial Asset and Liability Values—When developing the **actuarial balance sheet** or the cohort pricing analysis, the actuary should develop the following **actuarial present value** items.

3.6.1 Future Periodic Fees—The actuary should estimate the **actuarial present value** of future **periodic fees** by projecting the fees payable by the surviving **residents** or **members** of the appropriate closed-group population in each **level of care** in each future year, and discounted to the **valuation date**. In the estimate of future

fees, the actuary should reflect current rates adjusted for projected future fee increases.

3.6.2 Future Additional Fees and Third Party Payments—The actuary should estimate the **actuarial present value** of future **additional fees** (such as guest meals and additional meals) and third party payments. When projecting future payments, the actuary should project the additional revenue payable by, or on behalf of, the surviving **residents** or **members** attributable to the appropriate closed-group population in each **level of care** in each future year. In the estimate of these future payments, the actuary should reflect current experience adjusted for projected future increases.

3.6.3 Physical Property for Assets Currently in Service—The actuary should estimate the **actuarial present value** of **physical property** for assets currently in service as the **actuarial present value** of the projected remaining annual capital expense charges associated with assets in service as of the **valuation date**.

The actuary should estimate the annual capital expense charge for the use of an asset for each year using its useful lifetime. The projected annual capital expense charge consists of the imputed interest charge for the use of the asset plus the change in asset value from one year to the next. In calculating the capital expense charges, the actuary should use a rate consistent with the cost of capital at the time the asset was originally put into service or the cost of capital in the current economic environment.

3.6.4 Future Use of Physical Property—The actuary should estimate the **actuarial present value** of the future use of **physical property** by taking the projected annual capital expense charges for both the current and replacement fixed assets allocated to the surviving **residents** of the appropriate closed-group population in each future year and discounting the result back to the **valuation date**. The actuary should use a methodology to estimate the annual capital expense charges that is consistent with the methodology used to estimate the **actuarial present value** of **physical property** for assets currently in service (see section 3.6.3).

3.6.5 Future Operating Expenses—The actuary should estimate the **actuarial present value** of future operating expenses by taking the operating expenses allocated to the **residents** or **members** of the appropriate closed-group population in each future year and discounting the result back to the **valuation date**. The actuary should exclude from future operating expenses (a) future capital expenditures, which are discussed in section 3.6.4; and (b) the future long-term debt interest and principal payments, which are discussed in section 3.6.7.

When estimating future operating expenses, the actuary should reflect future cost **trends** and reflect underlying expense consumption patterns in the allocation. The actuary should allocate expenses across the various **levels of care** and within each

level of care on an appropriate basis such as per person, per unit, or per square foot.

3.6.6 Future Refunds Due to Refund Guarantees—The actuary should estimate the **actuarial present value** of future refunds due to **refund guarantees** by estimating the amount of refund due to each terminating **resident** or **member** of the appropriate closed-group population in each future year and discounting the amounts back to the **valuation date**. The refund calculation is for the contractual amount of the **advance fee** refund. The actuary should calculate the estimate of the **advance fee** refund based on the contractual liability for each future year on the terms of the **residency agreement** or **membership agreement** assumed to be applicable to that **resident** or **member** and the organization's actual practice, if any, with regard to payment of refunds.

3.6.7 Long-Term Debt—The actuary should estimate the present value of long-term debt as the discounted value of the projected remaining principal and interest payments as of the **valuation date**. The present value of long-term debt may be different than the amount on the accounting balance sheet depending on the relationship between the discount rate and the actual or expected interest rate on the debt.

3.7 Selection of Actuarial Assumptions—The actuary should take into account the following when selecting assumptions.

3.7.1 Mortality, Morbidity, and Withdrawal Assumptions—In selecting assumptions for rates of mortality, **morbidity**, and **withdrawal**, the actuary should reflect each of the following as appropriate:

a. age and gender;

b. health characteristics;

c. **permanent transfer** and **temporary transfer** patterns;

d. **level of care** status and expected differences in experience between **residents** or **members** in different **levels of care**;

e. time elapsed since the last change in the **level of care**;

f. single or multiple occupancy;

g. profile of new **residents** or **members**;

h. time elapsed since the **resident** or **member** entered the **CCRC** or **At Home Program**;

i. actual experience of the **CCRC** or **At Home Program**, and the credibility of the experience;

j. contractual guarantees, such as **health care guarantees** and **refund guarantees**; and

k. operational policies and practices of the organization, such as transfer policies.

The actuary should select **trend** assumptions for rates of mortality, **morbidity**, and **withdrawal** that are reasonable, in the actuary's professional judgment. In selecting **trend** assumptions, the actuary should consider and review appropriate data. These data may include past **trend** experience studies, past projections of **trends,** or appropriate industry studies.

3.7.2 Trend Assumptions for Fees and Expenses—The actuary should set **trend** assumptions for **periodic fees**, **advance fees**, **additional fees**, and other revenue items. The actuary should also set **trend** assumptions for operating expenses, capital expenditures, and other expense items. The actuary may use different **trend** assumptions, as appropriate, for various categories of revenues and expenses. In setting **trend** assumptions for **periodic fees**, the actuary should also take into account practical, competitive, and contractual considerations.

The actuary should select assumptions for future **trends** in **periodic fees** that are consistent with the **trend** assumptions that are used in projecting future expenses. If the actuary uses different **trend** assumptions for **periodic fees** and operating expenses, the actuary should disclose this difference.

3.7.3 Investment Rate and Discount Rate Assumptions—The actuary should select investment rate and discount rate assumptions that are individually reasonable, mutually consistent, and reflective of the long-term nature of the **residency agreement** or **membership agreement** as follows:

a. short- and long-term market expectations, and the future investment strategy of the organization to estimate investment income for the cash flow projection; and

b. a discount rate to estimate **actuarial present values** that, in the actuary's professional judgment, is reasonable and appropriate, and is consistent with the investment rate.

3.7.4 Revenue and Expense Allocation Assumptions—The actuary should assume an allocation of general revenues and expenses to the various **levels of care**, and to current and new **residents** or **members**. The actuary should determine whether the sum of all allocated expenses reconciles to the total projected expenses of the **CCRC** or **At Home Program**.

3.7.5 Going-Concern Assumption—The **actuarial balance sheet**, the cohort pricing analysis, and the cash flow projection rely on assumptions predicated on the ongoing financial viability and continuation of the **CCRC** or **At Home Program**. This implies that the organization will be able to maintain appropriate occupancy or membership levels by attracting new **residents** or **members** to replace existing **residents** or **members**. The actuary should assess the ability of the organization to attract new **residents** or **members** or any other known, significant circumstances that, in the actuary's professional judgment, may affect the organization's ability to remain a going concern.

3.7.6 Reasonableness of Assumptions—The actuary should review the assumptions for reasonableness. The assumptions should be reasonable, in the actuary's professional judgment, in the aggregate and for each assumption individually. The actuary should identify material changes in assumptions, and methods relating to the use of those assumptions, compared to the most recent prior analysis if applicable.

In reviewing the assumptions for reasonableness, the actuary should take into account the following:

a. the purpose of the measurement;

b. the frequency with which the projections are expected to be updated;

c. the length of the projection period;

d. the sensitivity of the projections to the effect of variations in key actuarial assumptions;

e. the potential variability of the assumption;

f. the size of the **CCRC's resident** population or **At Home Program** membership;

g. the ability to increase fees or decrease expenses in future periods;

h. the level of capital available to provide for adverse fluctuation; and

i. any significant margins for uncertainty that have been included in the actuarial assumptions.

3.8 Benevolence Funds and Financial Assistance Subsidies—The actuary should determine the benevolence funds or financial assistance subsidies available as well as the potential future liabilities for **residents** or **members** who do not pay the contractual fees. For example, some organizations may set aside assets or funds from charitable contributions

to assist **residents** or **members**, while other organizations may include the costs of any assistance in the basic **fee structure**.

3.9 For-Profit CCRCs or At Home Programs—When performing actuarial services with respect to for-profit organizations, the actuary should determine the nature and financial implications of the ownership arrangement, including owner's equity, past and possible future equity distributions, potential income tax liability, and historical and future capital expenditures funded by the owner.

3.10 Equity or Cooperative CCRCs or At Home Programs—When performing actuarial services with respect to equity or cooperative **CCRCs** or **At Home Programs**, the actuary should determine the nature and financial implications of any **resident** or **member** ownership arrangement, including **advance fee** payments and refunds due to **refund guarantees**, and the value of assets invested in the **physical property** and the replacement costs of these fixed assets.

3.11 Additional Considerations Affecting CCRC or At Home Program Finances—The actuary should determine the scope of the organization's commitments to current and prospective **residents** or **members** and the nature of its **fee structure**. The actuary may obtain this information from the applicable **residency agreements** or **membership agreements** and any other reasonable source of information about the organization. When interpreting these documents, the actuary should determine the following:

a. the admission and underwriting criteria and how they are applied;

b. the terms of the **residency agreement** or **membership agreement** and any limitations on the period for which commitments are made;

c. any known, significant limitations on the organization's ability to change future **periodic fees**;

d. any **refund guarantees**;

e. any limitation on the services provided and any collectability risk for services limited under the contract or requiring additional payment;

f. any contract provisions for prepaid health care or for additional charges if a **resident** or **member** receives health care;

g. any affiliation with another entity and the extent to which any such entity would assume responsibility for the organization's obligations; and

h. any other matter that, in the actuary's professional judgment, is expected to have a material effect on the organization's current or future financial statements.

3.12 External Restrictions—The actuary should take into account restrictions on the **CCRC** or **At Home Program** from external sources, such as applicable law, regulation, or other binding authority. Examples include a state's Medicaid reimbursement policy, regulations restricting the use of **health center** beds by **non-residents**, and any relevant lender-imposed restrictions.

3.13 Reliance on Data or Other Information Supplied by Others—When relying on data or other information supplied by others, the actuary should refer to ASOP No. 23, *Data Quality*, and ASOP No. 41, *Actuarial Communications*, for guidance.

3.14 Documentation—The actuary should consider preparing and retaining documentation to support compliance with the requirements of section 3 and the disclosure requirements of section 4. When preparing documentation, the actuary should prepare documentation in a form such that another actuary qualified in the same practice area could assess the reasonableness of the actuary's work or could assume the assignment if necessary. The degree of such documentation should be based on the professional judgment of the actuary and may vary with the complexity and purpose of the actuarial services. In addition, the actuary should refer to ASOP No. 41 for guidance related to the retention of file material other than that which is to be disclosed under section 4.

Section 4. Communications and Disclosures

4.1 Required Disclosures in an Actuarial Report—When issuing an actuarial report to which this standard applies, the actuary should refer to ASOP Nos. 7, 23, and 41. In addition, the actuary should disclose the following in such actuarial reports, if applicable:

a. historical and current financial data used to produce the **actuarial balance sheet**, cohort pricing analysis, and cash flow projections, in accordance with sections 3.3, 3.4, and 3.5;

b. summary of historical **resident** or **member** data and population statistics for **residents** or **members** as of the **valuation date**, in accordance with sections 3.3, 3.4, and 3.5;

c. assumptions and methodology used in performing the **population projections**, in accordance with sections 3.3, 3.4, and 3.5;

d. assumed expense levels consistent with the targeted number of **residents** or **members** when a material change in the population is expected, in accordance with section 3.4;

e. assumptions and methodology used to estimate each **actuarial present value**, in accordance with section 3.6;

f. assumptions and methodology used to value and depreciate the **physical property**, in accordance with sections 3.6.3 and 3.6.4;

g. assumed rates of mortality, **morbidity**, **withdrawal**, and occupancy, in accordance with sections 3.7.1;

h. **trend** rates for revenues and expenses, and the relationship between the two, in accordance with section 3.7.2;

i. investment rate and discount rate, in accordance with section 3.7.3;

j. assumptions and methodology used to allocate general revenue and expenses, in accordance with section 3.7.4;

k. any known significant circumstances that may affect the organization's ability to remain a going concern, in accordance with section 3.7.5;

l. assumptions and methodology used for any significant margin for uncertainty, or a similar adjustment or provision, included in the actuarial valuation, including any significant assumptions affecting the valuation regarding surplus available to provide for adverse fluctuations, in accordance with section 3.7.6;

m. any material changes in assumptions or methods from the most recent prior analysis, in accordance with section 3.7.6;

n. the results of any sensitivity tests performed, in accordance with section 3.7.6; and

o. any assistance assumed to be derived from dedicated benevolence funds or financial assistance subsidies, in accordance with section 3.8.

4.2 Assignments Involving an Opinion on Satisfactory Actuarial Balance—The actuarial report should disclose the **actuarial balance sheet**, the cohort pricing analysis, and the **cash and investment balances** at the beginning and end of each projection year, which were prepared to test the three conditions, in accordance with sections 3.3, 3.4, and 3.5 and state whether or not each condition is met.

If one or more of the three conditions is not met, the actuary should disclose the implications of the deficiency and a description of management's plans to address the deficiency for each unmet condition.

If the actuary is unable to form the needed opinion regarding whether the organization is in satisfactory actuarial balance, or if the opinion is adverse (due to failing one or more of the conditions) or otherwise qualified, then the actuary should disclose why the actuary is unable to form an unqualified favorable opinion.

4.3 Additional Disclosures in an Actuarial Report—The actuary also should include the following, when applicable, in an actuarial report:

a. the disclosure in ASOP No. 41, section 4.2, if any material assumption or method was prescribed by applicable law;

b. the disclosure in ASOP No. 41, section 4.3, if the actuary states reliance on other sources and thereby disclaims responsibility for any material assumption or method selected by a party other than the actuary; and

c. the disclosure in ASOP No. 41, section 4.4, if in the actuary's professional judgment, the actuary has otherwise deviated materially from the guidance of this ASOP.

Appendix

Background and Current Practices

Note: This appendix is provided for informational purposes and is not part of the standard of practice.

Background

Certain contractual obligations of a CCRC or At Home Programs are contingent upon the occurrence, timing, and duration of certain future events. The CCRC resident or At Home Program member typically pays for such future promised services through a combination of advance and periodic fees, typically before the services are provided. Actuarial methods are used to establish the fee structure and to measure the organization's liabilities for the provision of future promised services.

High occupancy, sound pricing, and effective financial management are keys to the successful operation of a CCRC. The ability of a CCRC to attract new residents to fill vacancies will depend on keeping the CCRC competitive with respect to its physical property, its fee schedule, and the general attractiveness of its whole environment. Membership levels, sound pricing, care management, and effective financial management are keys to the successful operation of an At Home Program.

Current Practices

Current actuarial practices for CCRCs are generally now well established. Prior to the release of the first edition of this ASOP and the release of subsequent educational material by various entities, actuaries used differing analytical approaches. These approaches included differing methods to determine closed and open-group resident projections, projected refunds due to refund guarantees, physical property valuations, long-term debt, and other items. While historically differences did exist, these differences have now mostly been eliminated and standardized practices have evolved.

Illustrative Capital Expense Charge Development and Physical Property Valuation

The physical property, or fixed assets, of a CCRC are a significant asset of the CCRC, and also a significant cost to the residents of the CCRC. In order to provide for equity among generations of residents, it is necessary to allocate an appropriate part of the cost of the use of physical property to current residents as of the valuation date and to the cohort of new residents.

The method described in this appendix for developing and assigning the annual capital expense charge for asset use, determining the asset's actuarial value, and determining the liability for asset use is one illustrative method designed to provide for equity among generations of

residents. (Illustrative formulas for expensing and valuing physical property are presented at the end of this appendix.)

Physical property assets may be valued and depreciated using level, decreasing, or increasing depreciation methodologies based on actuarial principles, the nature of the underlying assets, and other factors.

<u>Capital Expense (Imputed Interest plus Depreciation) Charges</u>—The annual capital expense charge for physical property consists of the imputed interest for the use of the asset, or opportunity cost of using cash resources for purchasing a fixed asset (because it is not an interest-earning investment), plus the change in asset value from one year to the next.

a. Each item of physical property is assigned an assumed useful lifetime and an appropriate rate of inflation. While GAAP expected lifetimes might be available, alternative lifetimes may be available from other sources such as engineering studies performed by the client. In the case of land, the expected useful lifetime may be perpetual.

b. The annual capital expense charge for the use of an asset is developed for each year using its useful lifetime and is calculated as one of a series of annual amounts. The present value of this series, discounted to the time of acquisition, equals the cost of the asset. This series of annual amounts may be decreasing, level, or increasing.

c. In similar fashion, capital expense charges are developed for physical property assumed to be purchased in future years. It is assumed that each asset will be replaced at the end of its useful lifetime with a new asset. The cost of the new asset is assumed to equal the original cost indexed for inflation. The asset is continually replaced at the end of successive useful lifetimes.

   An approximation of these replacement costs that better reflects the expected magnitude and timing of future capital expenditures may also be used. These approximations reflect a sufficient level of future capital expenditures necessary to maintain the physical property for future use.

Capital expense charges are developed for the following items:

a. Actuarial Value of Physical Property for Assets Currently in Service—Reflected as an asset on the actuarial balance sheet;

b. Actuarial Present Value of Future Use of Physical Property Consumed by Current Residents throughout Their Respective Lifetimes—Reflected as a liability on the actuarial balance sheet; and

c. Actuarial Present Value for Future Use of Physical Property Consumed by a Hypothetical Group of Prospective Residents—Reflected as a liability on the cohort pricing analysis.

Value of Physical Property for Assets Currently in Service—The actuarial value of each asset is the discounted value (without survivorship) of the remaining annual capital expense charges as of the valuation date. The sum of these values for all such assets in service as of the valuation date is reflected as an asset on the actuarial balance sheet.

Value of Future Use of Physical Property for Existing Residents—The actuarial present value of the future use of physical property for existing residents is the discounted value (with survivorship) of the annual capital expense charges for the physical property, *and* its replacements, allocated to existing residents as of the valuation date.

a. The part of each future year's capital expense charge that relates to the existing residents as of the valuation date is determined by estimating the ratio of the existing resident survivorship group use to total CCRC use. The ratio may be in proportion to population, number of CCRC occupied beds or units, square footage, or some other appropriate measure. For years during fill-up or material change in population, it may be appropriate to substitute a target or ultimate level of use for the actual estimated level of total use.

b. The current actuarial liability for the promised future use of a physical asset (and its replacements) with respect to the existing resident closed group is the sum (for all years) of the part of such capital expense charge in each future year related to the existing closed group, as determined in (a), discounted to the valuation date.

Value of Future Use of Physical Property for the New Entrant Cohort—The actuarial present value of the future use of physical property for the new entrant cohort is the discounted value (with survivorship) of the annual capital expense charges for the physical property, and its replacements, allocated to the new entrant cohort closed group.

a. The part of each future year's capital expense charge that relates to the new entrant cohort is determined by estimating the ratio of the new entrant cohort survivorship group use to total CCRC use.

b. The current actuarial liability for the promised future use of a physical asset (and its replacements) with respect to the new entrant cohort is the sum (for all years) of the part of such capital expense charge in each future year related to the new entrant cohort closed group, as determined in (a), discounted to the valuation date.

Illustrative Formulas for Expensing and Valuing Physical Property

Note: These formulas illustrate allocations on a per-resident basis. Other allocation bases such as units, beds, square footage, etc. may be more appropriate for certain assets.

A. Relationships of Asset Cost, Asset Value, and Open-Group Annual Expense

A = Actual asset

e = Expected years of the asset's useful lifetime.

E_n = Annual expense in year n for use of the asset. For simplicity in these illustrations, we assume it is payable at the end of the year.

j = Assumed annual rate of increase in E. Note that j could be zero. Setting $j = k$ makes it possible to anticipate a smooth progression in annual expense at the time the asset is replaced when its useful lifetime ends. (It is not necessary that E_n's form a geometric series. However, in this example the E_n's do form such a series.)

k = Assumed annual rate of increase in replacement cost of A.

i = Assumed annual discount, or cost of capital, rate.

v = $1/(1 + i)$.

A_o = Acquisition cost of the asset.

$$A_o = v * E_1 + v^2 * E_2 + ... + v^e * E_e.$$

From this we obtain

$$E_1 = \frac{A_o * (i - j)}{1 - [v * (1 + j)]^e}, \qquad \text{provided } i \neq j$$

V_n = Value of the current asset at duration n, where $n < e$.

$$V_n = v * E_{n+1} + v^2 * E_{n+2} + ... + v^{e-n} * E_e.$$

From this we obtain

$$E_{n+1} = i * V_n + (V_n - V_{n+1}).$$

This shows that the annual expense for a physical asset consists of the interest that is forgone (because it is not an interest-earning investment), plus the change in asset value from one year to the next. In the case of land, the annual expense consists of only the interest that is forgone, since there is no assumed change in asset value (lifetime is perpetual).

B. Relationship of Closed-Group Liability with Open-Group Expense

P_n = Projected total population at duration n, determined on an open-group basis. Depending on the circumstances, a reasonable approximation for P may be a constant number equaling the current population.

C_n = Projected surviving population at duration n from a specified closed group. The closed group may be the closed group of current residents or the closed group for a cohort of new residents.

If a part of a given CCRC is used for persons not under contract, only the fraction devoted to those under contract should be considered. One way of accomplishing this is to include those not under contract in P_n but not in C_n.

$$R_{n+1} = \frac{C_n + C_{n+1}}{P_n + P_{n+1}},$$ representing the ratio of the projected closed group population to the projected total population.

L_n = Liability at duration n for the future use of the asset and its replacements by a specific closed group.

$$L_n = v * R_{n+1} * E_{n+1} + v^2 * R_{n+2} * E_{n+2} + ... + v^{e-n} * R_e * E_e$$
$$+ v^{e-n+1} * R_{e+1} * E_{e+1} + v^{e-n+2} * R_{e+2} * E_{e+2} + ... + v^{2e-n} * R_{2e} * E_{2e}$$
$$+ .... + \text{until } R = 0.$$