RIVERSOURCE LIFE INSURANCE COMPANY

Address: 227 Ameriprise Financial Center, Minneapolis MN 55474

Actuarial Memorandum for Policy Form 30160A

October 2019

Policy form 30160A-MD is an individual policy form providing benefits to individuals for confinement in a nursing home with home care services. This policy form was issued in Maryland from February 15, 1999 to February 15, 2001. It was updated with endorsement form 32100 for applications received starting May 19, 2000; this rate filing does not apply to policies issued with the endorsement.

1. Purpose of Filing

This Actuarial Memorandum has been prepared for the purpose of demonstrating the compliance of this premium rate increase filing with the applicable laws of the State of Maryland and with the rules of the Administration and that the anticipated loss ratio of this policy form meets the minimum requirements of the state. It may not be appropriate for other purposes.

2. Description of Benefits

This is a federally tax qualified, individually underwritten policy form that provides comprehensive long-term care coverage. Benefits are payable for nursing home and assisted living facility ("ALF") care, home and community care, adult day care, respite care, caregiver training, hospice care and case management services. In most other states, benefits are not payable for hospice care. Equipment purchase benefits are also included with a lifetime maximum of 50 times the home and community care daily maximum benefit ("HCCDMB") amount. Benefits may be payable for other supplies and services if they are specified in an alternate plan of care agreed to by the insured, the insured's physician and RiverSource Life Insurance Company ("RiverSource Life").

This policy reimburses expenses incurred by the insured subject to the amount of coverage purchased. The facility care daily maximum benefit ("FCDMB") amount was elected by the insured at the time of issue. The FCDMB amount is applied to nursing home, ALF, bed reservation, respite care and alternative plan of care benefits. The HCCDMB amount was also elected by the insured at the time of issue and is a percentage (50%, 75% or 100%) of the FCDMB amount. The HCCDMB amount is applied to home care, adult day care and hospice care.

The lifetime maximum benefit amount was also elected at the time of issue. This established the maximum amount that will be paid under the policy for the combined total of all benefit payments. The choices were: 730 x FCDMB, 1,460 x FCDMB, 2,190 x FCDMB and unlimited (also referred to as "lifetime").

INFLATION PROTECTION
At the time of issue, the insured had the choice to elect No Benefit Increase Option, the Simple Benefit Increase Option or the Compound Benefit Increase Option. The Simple Benefit Increase Option increases the daily maximum benefit amounts (both facility and home and community care amounts) by 5% of the original daily maximum benefit amount each year starting with the second policy year and continuing for the life of the policy. The Compound Benefit Increase Option increases the previous year's daily maximum benefit amounts (both the facility and home and community care amounts) by 5% each year starting with the second policy year and continuing for the life of the policy. The

increasing benefit option will apply even when the policy is in claim status. The remaining lifetime maximum benefit amount, before the increase, also increases each policy year by the same percentage that the FCDMB amount increases. When the total amount paid under a policy is equal to the current lifetime maximum benefit amount, the policy is terminated.

DEDUCTIBLE PERIOD
Benefit payments commence after a deductible period of 20 or 90 days of service, depending on the plan initially chosen. Satisfaction of the deductible period begins with the first day on which benefit eligibility is established and expenses are incurred for which payment would be made if there were no deductible period. Only days in which services are used are credited toward satisfaction of the deductible period. These days do not need to be consecutive, but they must occur within a continuous period of three times the number of days in the deductible period. Only one deductible period needs to be satisfied during the lifetime of the policy.

The deductible period applies to all policy benefits except caregiver training, case management, equipment purchase and respite care. Days for which the only expenses incurred are expenses that are not subject to the deductible period will not be used to satisfy the deductible period.

BENEFIT ELIGIBILITY AND CONDITIONS
Benefit eligibility is based on the following: (a) the insured being unable to perform at least 2 or more of the following 5 activities of daily living ("ADLs"): (1) eating, (2) toileting, (3) transferring, (4) dressing and (5) continence, without substantial assistance for a period of at least 90 days due to a loss of functional capacity; (b) severe cognitive impairment requiring substantial supervision; or (c) the insured having a level of disability similar to that described in (a) above, based on standards established by the Secretary of the Treasury. A licensed health care practitioner must certify the eligibility conditions at least annually.

A Medicare non-duplication provision excludes benefits that otherwise would be paid but for the application of a Medicare deductible or coinsurance amount.

FACILITY CARE BENEFITS
Facility care benefits are payable for nursing home confinement, whether skilled, intermediate or custodial levels of care are received. Hospital confinement is not a prerequisite for benefit entitlement. Once benefit eligibility is established and the deductible period is satisfied, expenses incurred as a resident inpatient in a nursing home will be reimbursed up to the FCDMB amount that applies on the day expenses are incurred.

Facility care benefits are also payable for stays in a qualified ALF. A qualified ALF is one that has a minimum of 8 inpatients and has a 24-hour awake, trained and ready to respond staff. Once benefit eligibility is established and the deductible period is satisfied, expenses incurred as a resident inpatient in an ALF will be reimbursed up to the FCDMB amount that applies on the day expenses are incurred.

Premium payments will be waived during extended nursing home and ALF stays. The premium waiver begins after 90 days of confinement (including during the deductible period) in a nursing home or ALF. These days do not need to be consecutive, but they must occur within a continuous period of 180 days. The premium waiver stops once nursing home and ALF benefits cease. Home and community care benefit days do not have premiums waived and are not counted towards satisfying the waiver of premium deductible period.

If a temporary hospitalization is required during a period of confinement in a nursing home or ALF and there is a charge to reserve a bed in the facility, this policy will pay the FCDMB amount for up to 21 days per policy year. These days also count towards satisfying the deductible period.

HOME CARE BENEFITS
Home care benefits covered at 100% of the HCCDMB amount are services provided by a nurse, a licensed physical, occupational or speech therapist, a home health aide, a personal care attendant, adult day care and hospice care. In most other states, services provided by hospice care are not covered. Home care benefits covered at 80% of the HCCDMB amount are homemaker and chore services. These expenses will be reimbursed subject to the percent of the HCCDMB amount listed above on the day expenses are incurred.

ADDITIONAL BENEFITS
Benefits in this section do not count against either the FCDMB or HCCDMB amounts. They are, however, deducted from the lifetime maximum benefit amount, except for certain case management services described below. These expenses are not subject to the deductible period and they may not be used to satisfy the deductible period.

Expenses incurred for the first 14 days of respite care received during a policy year will be reimbursed subject to the FCDMB amount that applies on the day expenses are incurred.

Pre-approved equipment purchase expenses will be reimbursed up to a lifetime maximum of 50 times the HCCDMB amount. This equipment must be expected to help the insured remain in their home for at least 90 days.

Caregiver training expenses will be reimbursed up to a lifetime maximum of 5 times the HCCDMB amount.

The initial assessment fee for case management services is reimbursable, but, to the extent it exceeds 5 times the FCDMB amount, it will be deducted from the lifetime maximum benefit amount. Other fees charged for case management services are reimbursable, but, to the extent they exceed 2 times the FCDMB amount per use, they are deducted from the lifetime maximum benefit amount.

NONFORFEITURE BENEFIT RIDER
The insured had the option to select a nonforfeiture benefit rider at the time of issue. The nonforfeiture benefit rider provides a reduced lifetime maximum benefit amount upon

lapse. The FCDMB and HCCDMB amounts will continue at the same level as of the date of lapse, regardless of whether a benefit increase option was selected by the insured at issue.

In Maryland, the nonforfeiture benefit will begin if the policy terminates due to nonpayment of premium after the policy and rider have been inforce for at least 5 years. The reduced lifetime maximum benefit amount is determined as x% of (all premiums paid at the time of lapse minus any waived premiums minus the premiums paid for the nonforfeiture benefit rider) where x% equals 28% at the end of year 6 and increases 1% every policy quarter until it reaches a maximum of 80% or the insured reaches an attained age of 80, whichever comes first. In no case will the sum of the benefits paid during the premium paying period and the reduced lifetime maximum benefit amount exceed the lifetime maximum benefit amount at time of lapse. In most other states, the nonforfeiture benefit will begin if the policy terminates due to nonpayment of premium after the policy and rider have been inforce for at least 3 years. The reduced lifetime maximum benefit amount is determined as the sum of all premiums paid at the time of lapse, including the premiums for the nonforfeiture benefit rider. The reduced lifetime maximum benefit amount will not be less than 30 times the FCDMB amount at the time of lapse. In no case will the sum of the benefits paid during the premium paying period and the reduced lifetime maximum benefit amount exceed the lifetime maximum benefit amount at time of lapse.

The provisions for the benefit are at least as favorable as those prescribed by the 1996 NAIC Model Regulation.

3. Renewability

This policy form is guaranteed renewable for life.

4. Applicability

This rate filing is applicable to inforce policies only, except those issued with endorsement form 32100 (applications received on or after May 19, 2000), as this policy form is no longer being sold in the market.

5. Actuarial Assumptions

[REDACTED]

6. Marketing Method

This policy form was marketed by agents of RiverSource Life.

7. Underwriting Description

This policy form was fully underwritten with the use of various underwriting tools in addition to the application, which may have included medical records, an attending physician’s statement, telephone interview and/or face-to-face assessment.

8. Premiums

Premiums are unisex and payable for life. Premium rates vary by issue age, the initial FCDMB and HCCDMB amounts, the initial maximum lifetime benefit amount, the deductible period and the Benefit Increase Option.

9. Issue Age Range

The issue ages were from 40 to 79, except for the benefit structures with a 90-day deductible period, 730 x FCDMB or 1,460 x FCDMB initial lifetime maximum benefit amounts and HCCDMB amounts of 50% or 75% of the FCDMB amount which were issued to age 84.

10. Area Factors

Area factors are not used for this product.

11. Premium Modalization Rules

The following modal factors and nationwide percent distributions (based on inforce count as of December 31, 2018) are applied to the annual premium ("AP"):

Premium Mode	Modal Factors	Percent Distribution
Annual	1.0000*AP + 0.0	44.7%
Semi-Annual	0.5020*AP+ 0.4	7.1%
Quarterly	0.2580*AP+ 0.5	7.0%
Monthly	0.0868*AP+ 0.6	41.2%

12. Active Life Reserves

Active life reserves, although they have significant impact, have not been used in the analysis in this rate filing.

13. Trend Assumptions

As this is not medical insurance, explicit medical cost trends have not been included in the projections.

14. Past and Future Policy Experience

Nationwide experience for policy form 30160A is provided in Exhibit 6, including any previously implemented premium rate increases as described below in section 15.

Historical experience is shown by claim incurral year with the loss ratio for each calendar year. The following formula provides an illustration of the historical loss ratio calculation for each calendar year:

$$LR_j = \frac{\sum_k \sum_t {}_j Pmt_t^k * v^{t-k} + \sum_k ({}_j CR_{ValDate}^k + {}_j IBNR_{ValDate}^k) * v^{ValDate-k}}{EP_j}$$

LR_j = loss ratio for year *j*

${}_j Pmt_t^k$ = claim payments at time *t* for claims incurred at time *k* in year *j*

${}_j CR_{ValDate}^k$ = open claim reserve held on December 31, 2018 for claims incurred at time *k* in year *j*

${}_j IBNR_{ValDate}^k$ = incurred but not reported reserve as of December 31, 2018 attributable to claims incurred at time *k* in year *j*

EP_j = earned premium in year *j*

ValDate = December 31, 2018

j = year of claim incurral

k = date of claim incurral

t = date of claim payment

v = 1 / 1.045 = 0.956938

A historical annual loss ratio is calculated, without and with interest, as historical incurred claims divided by historical earned premiums. Historical earned premiums in Exhibit 6 are calculated based on the issue and, if appropriate, termination date for each policy. Historical incurred claims in Exhibit 6 are determined by discounting claim payments and open claim reserves to the actual original loss date for each claim and by discounting IBNR to the time it is assumed to occur. These items are then summed to produce a total for each calendar year. For purposes of accumulating historical experience for a historical or for a lifetime loss ratio calculation, these calendar year totals are assumed to represent a mid-year value.

A future annual loss ratio is calculated, without and with interest, as anticipated incurred claims divided by anticipated earned premiums. Anticipated earned premiums and incurred claims are projected on a seriatim basis and then summed to produce a total for each calendar year. For purposes of discounting projected future experience for an anticipated or for a lifetime loss ratio calculation, these calendar year totals are assumed to represent a mid-year value.

A lifetime loss ratio as of December 31, 2018 is calculated as the sum of accumulated historical experience and discounted projected future experience where accumulation and discounting of the total for each calendar year occur at 4.5% and assume mid-year values.

15. History of Previous Premium Rate Revisions

Four prior premium rate increases have been received and filed and implemented on this policy form in Maryland. A 15% increase was received and filed in September 2007 and implemented on each policyholder's next policy anniversary beginning in January 2008. A 15% increase was received and filed in September 2008 and implemented on each policyholder's next policy anniversary beginning in January 2009. A 15% increase was received and filed in June 2013 and implemented on each policyholder's next policy anniversary beginning in September 2013. A 15% increase was received and filed in November 2015 and implemented on each policyholder's next policy anniversary beginning in February 2016.

The actual and projected premiums in Exhibit 6 reflect the accumulated premium rate increases as received and filed in Maryland and implemented from 2008 through 2017 on a nationwide basis.

16. Requested Premium Rate Increase and Demonstration of Satisfaction of Loss Ratio Requirements

The company is requesting a premium rate increase of 15%.

[REDACTED]

The reason for the requested premium rate increase is due to a combination of actual lapse and mortality running less than expected in pricing and actual morbidity experience worse than expected for older attained ages. A premium rate increase is considered an effective way to reduce projected losses.

[REDACTED]

17. Maryland Average Annual Premium (Based on December 31, 2018 Inforce)

Before increase:	$2,334
After increase:	$2,683

These values assume all previously received and filed premium rate increases have been fully implemented on all policies.

18. Proposed Effective Date

The premium rate increase will apply to policies on their policy anniversary date following a 60-day notification period.

19. Nationwide Distribution of Business (Based on December 31, 2018 Inforce Count)

By Issue Age:

Issue Ages	Percent Distribution
<55	33.0%
55-59	28.0%
60-64	23.4%
65-69	11.3%
70-74	3.6%
75-79	0.6%
>79	0.1%

By Deductible Period:

Deductible Period	Percent Distribution
20-day	18.3%
90-day	81.7%

By Benefit Period:

Benefit Period	Percent Distribution
2-Year	3.7%
4-Year	30.5%
6-Year	25.6%
Unlimited	40.2%

By Inflation Protection Option:

Inflation Option	Percent Distribution
None	7.7%
Simple	39.5%
Compound	52.8%

By Gender:

Gender	Percent Distribution
Female	63.5%
Male	36.5%

20. Number of Policyholders

As of December 31, 2018, the number of policies and annual premium inforce, assuming all premium rate increases previously received and filed in Maryland have been fully implemented on all policies in both the state and nationwide, is:

	Number of Insureds	Annual Premium
Maryland	330	$770,122
Nationwide	25,538	$ 58,583,999

21. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for preparing health rate filings and to render the actuarial opinion contained herein.

I believe this rate filing is in compliance with the applicable laws of the State of Maryland and with the rules of the Administration. This Actuarial Memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of the State of Maryland. Furthermore, the actuarial assumptions are appropriate. In my opinion, the rates are not excessive or unfairly discriminatory. This rate filing will progress toward premium adequacy but may not be sufficient to prevent future rate action. Therefore, benefits cannot be certified as reasonable in relation to premiums.

Anju Gupta-Lavey, FSA, MAAA
Director - Actuary
RiverSource Life Insurance Company
Date: October 4, 2019