RIVERSOURCE LIFE INSURANCE COMPANY

Address: 227 Ameriprise Financial Center, Minneapolis MN 55474

Actuarial Memorandum for Policy Form 30225 Series

October 2019

Policy forms 30225-MD, 30225-MD1 and 30225A-MD1 are individual policy forms providing benefits to individuals for confinement in a nursing home. These policy forms were issued in Maryland from January 15, 1993 to July 15, 1999. Policy form 30225A-MD1 only was issued with revised rates in Maryland for applications received January 1, 1999 and later; this rate filing does not apply to policies issued under policy form 30225A-MD1 with 1997 revised rates.

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 these policy forms meets the minimum requirements of the state. It may not be appropriate for other purposes.

2. Description of Benefits

These are individually underwritten policy forms which pay a daily benefit for confinement in a nursing home. Benefits are payable under skilled, intermediate or custodial levels of care. Hospital confinement is not a pre-requisite for benefit entitlement.

The confinement daily benefit amount was selected at issue. The maximum period for which confinement benefits are payable was also selected at issue. The choices were: 2 years, 3 years, 4 years (for policy form 30225-MD only) and unlimited (also referred to as “lifetime”). Policy form 30225-MD pays 60% and policy forms 30225-MD1 and 30225A-MD1 pay 100% of the confinement daily benefit for stays in a qualified Assisted Living Facility (“ALF”). A qualified ALF is one that has a minimum of 10 inpatients and has a 24-hour awake, trained and ready to respond staff. In most states, the ALF benefit is consistent with that for policy form 30225-MD.

Confinement benefit payments commence after an elimination period of 20 days or 100 days, depending on the plan initially chosen. During the continuation of confinement benefit payments, the premiums are waived after 90 days.

Benefit eligibility for nursing home coverage is based on the following: (a) sickness or injury (1996 and prior issues only); (b) the insured being unable to perform at least 2 or more following activities of daily living (“ADLs”) deficiencies: Continence, Dressing, Feeding, Toileting and Transferring; or (c) cognitive impairment. Benefit eligibility for ALF coverage is based on either: (a) the insured being unable to perform at least 2 or more out of 5 ADLs; or (b) cognitive impairment.

If temporary hospitalization is required during a period of confinement in a nursing home or an ALF and there is a charge for reserving a bed in the facility, these policies will pay the daily benefit for up to 21 days during any confinement period.

At the time of issue, the insured could choose to elect No Benefit Increase Option, the Simple Benefit Increase Option or the Compound Benefit Increase Option. The Simple Benefit Increase Option increases the original daily benefit amount by a fixed amount

(5% of the original daily 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 benefit amount by 5% per 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.

3. Renewability

These policy forms are guaranteed renewable for life.

4. Applicability

This rate filing is applicable to inforce policies only, except those issued under policy form 30225A-MD1 with application dates of January 1, 1999 and later which were issued with 1997 revised rates, as these policy forms are no longer being sold in the market. The rate increase will apply to the premium associated with the nursing home policy only. No rate increase is being requested for the premium associated with either the optional home care rider or the optional nonforfeiture benefit rider.

5. Actuarial Assumptions

[REDACTED]

6. Marketing Method

These policy forms were marketed by agents of RiverSource Life.

7. Underwriting Description

These policy forms were 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 daily benefit amount, the benefit period, the elimination period and the Benefit Increase Option.

9. Issue Age Range

The issue ages were from 40 to 79, except for the benefit structures with 100-day elimination period and non-lifetime benefit periods which were issued to age 84.

10. Area Factors

Area factors are not used for these products.

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	42.9%
Semi-Annual	0.5020*AP+ 0.4	8.8%
Quarterly	0.2580*AP+ 0.5	8.4%
Monthly	0.0868*AP+ 0.6	39.9%

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 30225 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 <u>illustration</u> of the historical loss ratio calculation for each calendar year:

$$LR_j = \frac{\sum_k \sum_t {}_jPmt_t^k * v^{t-k} + \sum_k ({}_jCR_{ValDate}^k + {}_jIBNR_{ValDate}^k) * v^{ValDate-k}}{EP_j}$$

LR_j = loss ratio for year *j*

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

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

${}_jIBNR_{ValDate}^k$ = 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

Six prior premium rate increases have been received and filed and implemented on these policy forms in Maryland. A 20% increase was received and filed in December 2004 and implemented on each policyholder’s next policy anniversary beginning in March 2005. A 12.5% increase was received and filed in October 2006 and implemented on each policyholder’s next policy anniversary beginning in May 2007. A 15% increase was received and filed in January 2008 and implemented on each policyholder’s next policy anniversary beginning in May 2008. A 15% increase was received and filed in October 2010 and implemented on each policyholder’s next policy anniversary beginning in January 2011. 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 2005 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: $1,562
After increase: $1,795

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	37.2%
55-59	30.6%
60-64	21.4%
65-69	8.4%
70-74	2.1%
75-79	0.3%
>79	<0.1%

By Elimination Period:

Elimination Period	Percent Distribution
20-day	18.9%
100-day	81.1%

By Benefit Period:

Benefit Period	Percent Distribution
2-Year	2.1%
3-Year	8.2%
4-Year	19.6%
Unlimited	70.1%

By Inflation Protection Option:

Inflation Option	Percent Distribution
None	11.2%
Simple	40.0%
Compound	48.8%

By Gender:

Gender	Percent Distribution
Female	62.1%
Male	37.9%

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	1,041	$1,625,536
Nationwide	39,455	$57,115,883

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

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