

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

1. PURPOSE AND SCOPE OF FILING

This is a rate increase filing for Lincoln National Life Insurance existing Long Term Care policy forms. The purpose of this filing is to demonstrate that the anticipated loss ratio of these forms meets the minimum requirements of this state. This rate filing is not intended to be used for any other purposes.

This rate filing is a request for a 5% increase, effective upon approval by the state, on all of the company's Long Term Care policy forms and rider forms as summarized below and in Exhibit C. The rate increase will apply to all insureds covered under the referenced policy series in Maryland. Exhibit C is included for those policies that were issued in Maryland as increases are given on an issue state basis.

The company will provide two alternative options in lieu of the rate increase. One option is a reduction in policy benefit limit and nursing home daily benefit maximum amounts. The other option is paid-up coverage, where the policy is converted to paid-up insurance with no further premium payments required. The policy benefit limit under this option will be reduced to an amount equal to the total premium paid under this policy less any waived premium and paid claims. With the paid-up coverage, the annual Benefit Increase Option, Restoration of Benefits and Guaranteed Insurability Rider are no longer available.

Lincoln National sold Long Term Care policies from 1991-1996. All inforce policies subject to this proposed rate increase were issued prior to August 1, 1996. Lincoln then ceded out 100% of the risk to GenRe who then ceded out 50% of the risk to Trustmark Insurance Company who also administers this block.

Series LTC1

Lincoln National Life Insurance Company
Long Term Care Policy HL-2500AA (8/90)
Home and Community Care Rider HL-2525AA (8/90)
Guaranteed Insurability Rider HL-2550AA (8/90)

Series LTC2

Lincoln National Life Insurance Company
Long Term Care Policy HL-2950AA (7/92)

The rate increase will apply to all insureds covered under the referenced policy series in this state. The rate increase is necessary because the emerging

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

experience reveals morbidity and policy persistency levels that produce lifetime loss ratios above the minimum required loss ratio.

2. BENEFITS

LTCI

This policy provides daily benefits for confinement in a nursing home. Optional riders are available to provide: (1) daily home health care and adult day care benefits, and (2) a guaranteed insurability privilege allowing an annual increase of 5% of the initial daily benefit through age 85.

Nursing home benefits begin after the insured has satisfied a deductible period (elimination period) and continue while the insured remains confined until the policy benefit limit has been reached. Home health care and adult day care benefits are subject to a separate deductible period and benefit limit. However, any day used to satisfy the nursing home deductible period also satisfies the home health care/adult day care deductible period. Each day of benefit, whether provided for nursing home confinement or home health care/adult day care, counts toward the policy benefit limit.

Benefit options include:

<u>Benefit Feature</u>	<u>Nursing Home</u>	<u>Home Health/ Adult Day Care</u>
Deductible Periods	0, 20, 60, 100 days	0, 20, 60, 100 days
Benefit Limits	730 days 1,095 days 1,460 days 1,825 days 2,190 days Unlimited	730 days 1,095 days 1,460 days 1,825 days 2,190 days Unlimited

The maximum daily home health care benefit equals the maximum daily benefit for nursing home confinement. However, no more than 50% of the maximum daily nursing home benefit will be paid for “basic” home health care services, as defined in the rider.

The maximum daily adult day care benefit is 25% of the maximum daily nursing home benefit.

A benefit increase option is also available. The benefit increase option provides a 5% compounded increase in the daily benefit limits each year through the

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

anniversary on or after the insured's 85th birthday or for 10 years, whichever period is longer. The benefit increase applies even when the policy is in claim status. If this option is elected a higher level premium is charged for the lifetime of the policy. The insured may not elect both the benefit increase option and the guaranteed insurability rider.

LTC2

This policy provides daily benefit for confinement in a nursing home or other confined care facility. This policy has an option, which may be elected, to provide home health and community care benefits.

Benefits begin after the insured has satisfied an elimination period, and continue while the insured remains confined or, if applicable, receives home health or community care services, until the policy benefit limit has been reached. Benefits paid for confined care and home health and community care all count toward the policy benefit limit. The policy benefit limit is a dollar amount that is calculated as the selected benefit period multiplied by the selected daily limit.

Benefit options include:

<u>Benefit Feature</u>	<u>Options</u>
Elimination Periods	0, 20, 60, 100, 180, 365 days
Benefit Limits	730 days 1,095 days 1,460 days 1,825 days 2,190 days Unlimited

The normal daily limit for home health and community care benefits is 60% of the daily limit for confined care benefits. The maximum daily limit for home health and community care benefits equal 100% of the daily limit for confined care benefits. However, no more than 80% of the actual charges will be paid for home health care basic services, adult day care, respite care, alternate care or equipment, and confined care outside of a nursing home, as defined in the policy.

Two annual increase optional benefits are included. The first provides a 5% equal annual increase in the daily limit and remaining benefit limit each year that the policy is in force. The second provides a 5% compounded annual increase in the daily limit and remaining benefit limit each year that the policy is in force. The

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

annual increase applies even when the policy is in claim status. Premiums are expected to remain level from issue under both increase options.

A return of premium option is also included. Upon death of the insured, termination of the policy, or a decrease in the daily limit and policy benefit limit, it provides for the payment of a return of premium as described in the policy.

3. RENEWABILITY

These policy forms are guaranteed renewable for life subject to the company's right to change premium rates.

4. APPLICABILITY

This filing applies to inforce insureds as these forms are no longer actively marketed. The premium change will be applicable to the base forms and to all riders associated with the base forms.

5. MORBIDITY

The Minnesota Milliman office projected future incurred claims based on the claim experience of these policy forms, the current demographics of the block, the original underwriting of the business, and their projection models. The ultimate claim costs represent best estimate values and do not include an explicit provision for moderately adverse conditions.

6. MORTALITY

The Annuity 2000 mortality table was used for projecting future mortality.

7. PERSISTENCY

Experience to date –

Policy Duration	Expected Termination Rate	Actual Termination Rate	Actual / Expected
2/1	15%	10%	67%
3/2	13%	8%	61%
4/3	12%	5%	45%
5/4	12%	6%	47%
6/5	11%	5%	46%
7/6	11%	5%	43%
8/7	11%	4%	37%

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

9/8	12%	5%	41%
10/9	14%	6%	42%
11/10	15%	6%	38%
12/11	15%	5%	34%
13/12	16%	7%	44%
14/13	16%	6%	38%
15/14	18%	5%	28%
16/15	19%	5%	39%
17/16	20%	5%	21%
18/17	21%	5%	24%
19/18	22%	6%	27%
20/19	22%	5%	23%
21/20	23%	6%	27%
22/21	24%	7%	31%
23/22	24%	8%	31%
24/23	30%	7%	22%
25/24	24%	9%	38%
26/25	25%	5%	22%

Note: As policies were issued in different years, not all policies have reached durations 22 and beyond. To account for this, the shaded numbers do not include policies that have not completed the given duration. Terminations include voluntary lapses and deaths. Future voluntary lapse rates are assumed to be 1.2%.

8. EXPENSES

Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

9. MARKETING

These policy forms were marketed by the companies' agents and marketing companies.

10. UNDERWRITING

These policies were fully underwritten. Attending physician statements were generally obtained.

11. PREMIUMS

Premiums vary by original issue age, benefit option selected, and risk class (with and without spousal discount). A factor of **1.05** will be applied to the currently filed and approved rates.

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

12. ISSUE AGE RANGE

The maximum issue age is 85; however, only a limited selection of benefit options was available over issue age 79.

13. AREA FACTORS

These policies were not area rated.

14. AVERAGE ANNUAL PREMIUM

<u>Plan</u>	<u>Before Increase</u>	<u>After Increase</u> (Maryland Rate Basis)
Maryland		
LTC1	\$1,285	\$1,349
LTC2	\$2,099	\$2,204
Nationwide		
LTC1	\$2,186	\$2,295
LTC2	\$2,258	\$2,371

15. PREMIUM MODALIZATION RULES

The following modal factors were applied to the annual premiums.

<u>Premium Mode</u>	<u>Modal Factor</u>
Annual	1.000
Semi-annual	0.520
Quarterly	0.265
Monthly	0.089

16. CLAIM LIABILITY AND RESERVES

Claim reserves and liabilities are calculated on a seriatim basis for known claims, plus an IBNR provision. These are based on continuation factors developed by Lincoln National Life for Home Care vs. Nursing Home, by sex and by whether or not bathing is a benefit trigger. Interest is at 5.5% for 1991-1992 claims, 5% for 1993-1994 claims, and 4.5% for 1995-2005, 4% for 2006-2012, and 3.5% for 2013 and later claims. Maximum benefits range from 2 years to lifetime.

17. ACTIVE LIFE RESERVE

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

Active life reserves were not necessary to demonstrate compliance with the minimum 60% loss ratio.

18. TREND ASSUMPTIONS

We have assumed that daily benefits will increase by 5% each policy year for plans with compound inflation protection. Plans without inflation protection do not include any trend.

19. MINIMUM REQUIRED LOSS RATIO

The minimum required loss ratio for these forms is 60%.

20. ANTICIPATED LOSS RATIO

The anticipated lifetime loss ratio for this book of business without the current proposed rate increase is 87.7% shown in Exhibit A. This is based on a 4.5% interest rate.

21. DISTRIBUTION OF BUSINESS - Nationwide

Distribution of Issues by Age –

Issue Age	Distribution
<50	8.6%
50-54	14.4%
55-59	22.5%
60-64	31.4%
65-69	17.4%
70-74	4.7%
75-79	0.8%
80+	0.1%
Total	100.0%
Average Age	59

Distribution of Issues by Plan –

Plan	Distribution
LTC1	13.4%
LTC2	86.6%

Distribution of Issues by Gender –

Gender	Distribution
--------	--------------

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

Male	35.3%
Female	64.7%

Distribution of Issues by Benefit Period –

Benefit Period (years)	Distribution
2	4.4%
3	15.9%
4	20.6%
5	7.1%
6	2.3%
Unlimited	49.6%

Distribution of Issues by Elimination Period –

Elimination Period (days)	Distribution
20	32.4%
60	22.8%
100	42.7%
365	2.1%

Distribution of Issues by Home Health Care Percentage –

Home Health Care Percentage	Distribution
0%	17.2%
60%	16.2%
75%	0.2%
100%	66.4%

Distribution of Issues by Risk Class –

Risk Class	Distribution
With spousal discount	66.8%
Without spousal discount	33.2%

Distribution of Issues by Optional Rider –

Optional Rider	% Electing
Compound Inflation	19.8%
Simple Inflation	18.7%
Guaranteed Insurability	0.4%

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase Long Term Care Policies

Return of Premium 9.0%

22. CONTINGENCY AND RISK MARGINS

Contingency and risk margins have not been included in the justification for this rate increase.

23. EXPERIENCE OF THE FORM

See Exhibit A for calendar year historical experience through December 31, 2016 as well as projected future experience. Historical incurred claims reflect claim payment runoff through December 31, 2016 plus the claim reserve estimate as of December 31, 2016 (as described in Section 16 above).

Exhibit B provides projected future experience including the proposed rate increase. The assumed implementation date is February 1, 2019.

Future claims experience data is from a recently completed analysis of this block of business performed by the Minnesota Milliman office.

24. LIFETIME LOSS RATIO

The lifetime anticipated loss ratio is 87.7%. See Exhibit A for the calculation.

25. HISTORY OF RATE ADJUSTMENTS

A 15% rate increase was approved in the state of Maryland in 2003, a 15% rate increase in 2006, a 15% rate increase in 2009, a 15% increase in 2016, and a 15% increase in 2017.

26. NUMBER OF POLICYHOLDERS

The number of policyholders and annualized inforce premium as of 12/31/2016 are shown below.

Company	Plan	Annualized Premium	Inforce
Maryland Only			
LNL	LTC1	\$14,133	11
LNL	LTC2	\$386,143	184
Nationwide			
LNL	LTC1	\$428,812	189
	LTC2	\$3,258,777	1,441

Lincoln National Life Insurance Company

Actuarial Justification of Premium Rate Increase

Long Term Care Policies

	LTG1	\$27,626	21
	LTG2	\$3,614	4
FPP	LTC1	\$13,856	7
	LTC2	\$0	0
SC	LTC1	\$17,240	6
	LTC2	\$0	0

Note: In other sections, LTG1 and LTG2 are grouped with LTC1 and LTC2 respectively as they have similar policy provisions. LTG policies are group policies while the LTC policies are individual policies.

27. PROPOSED EFFECTIVE DATE

The proposed 5% increase will be implemented as soon as possible following approval after fulfillment of all statutory and contractual requirements. The assumed implementation in Exhibit B is February 1, 2019.

28. ACTUARIAL CERTIFICATION

I hereby certify to the best of my knowledge and judgment, the entire rate filing submitted herein is in compliance with all applicable laws of this state, the rules of the Department of Insurance, and Actuarial Standard of Practice Number 8 as adopted by the Actuarial Standards Board. In my opinion, the rates are not excessive or unfairly discriminatory. This filing will enhance premium adequacy, but future rate action may be necessary. Therefore, benefits cannot be certified reasonable in relation to premium.

Respectfully submitted,



Kristen S. Kim, F.S.A., M.A.A.A.
Executive Director and Actuary
Trustmark Insurance Company, DI/LTC Division