

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

<u>Product Name</u>	<u>Form Number</u>	<u>Issue Date Range</u>
Leading Edge	LTC-06 MD	Feb 2007 – Jan 2011

These policy form rates were originally priced with a margin for moderately adverse experience in accordance with the NAIC model rate stability regulations.

1. Scope & Purpose

This memorandum consists of materials which support the development of new premium rates for the above captioned Policy series forms. The purpose of this memorandum is to demonstrate that the requirements of this State in regards to an in force rate increase request have been met. This rate filing is not intended to be used for any other purpose.

2. Benefit Description

A brief policy description for the policy form:

Individually underwritten long-term care policies that provide comprehensive long-term care coverage for care received in a nursing home or assisted care living facility, home health care, hospice care, respite care, or attendance at an Adult Day Care Center providing Adult Day Care.

Provides reimbursement of covered long-term care expenses incurred after an elected elimination period is met, up to the maximum daily/monthly amount. The benefit eligibility is determined based on the insured's cognitive impairment or their requiring physical assistance to perform two out of six activities of daily living (ADLs) of bathing, dressing, eating, toileting, transferring and maintaining continence.

Premiums are waived after the insured has met the elimination period and is receiving benefits and will continue to be waived until the insured stops receiving such benefits.

3. Renewability

All policy forms are guaranteed renewable.

4. Applicability

This filing is applicable to in force policies only, as these policy forms are no longer being sold in the market. The premium changes will apply to the base forms as well as all applicable riders.

5. Actuarial Assumptions

[REDACTED]

6. Trend Assumptions

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

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

7. Marketing Method

This product was typically marketed through our traditional agency system and brokers involving a personal contact with each applicant.

8. Underwriting

These policy forms were underwritten using a medical and risk questionnaire. We also utilized Attending Physician Statement and personal interviews depending on the age of the applicant and medical conditions.

9. Premium Classes

The base policy premium rates vary by Issue age, Benefit Period, and Inflation Option, as in the initial rate filing.

All premium factors related to the insured elected benefit design options, underwriting class or any eligible discount remain unchanged from the initial rate filing.

10. Premium Modalization Rules

Frequency	Multiple of Annual Premium
Semiannual	.52
Quarterly	.2625
Monthly	.0875

11. Issue Age Range

The issue age range is 18-79 for all policy forms.

12. Area Factors

Area factors are not applicable to any of the policy forms or riders.

13. Average Annual Premium

The table below summarizes the average annual premium per policy before and after the requested increase.

State	Policy Form	Average Premium	
		before the rate increase	after the rate increase
AK	LTC-06 AK	2,370	3,008
AL	LTC-06	1,630	2,069
AR	LTC-06 AR	1,640	2,082
AZ	LTC-06 AZ	2,030	2,577
CO	LTC-06 CO	1,910	2,424
CT	LTC-06 CT	2,460	3,122
DC	LTC-06 DC	2,850	3,617
DE	LTC-06 DE	2,320	2,945

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

FL	LTC-06 FL	2,020	2,935
GA	LTC-06 GA	2,070	2,627
HI	LTC-06 HI	2,470	3,135
IA	LTC-06 IA	1,700	2,158
ID	LTC-06 ID	1,510	1,917
IL	LTC-06 IL	1,970	2,500
IN	LTC-06 IN	2,080	2,640
KS	LTC-06 KS	1,640	2,082
KY	LTC-06 KY	1,880	2,386
LA	LTC-06 LA	1,680	2,132
MA	LTC-06 MA	2,670	3,389
MD	LTC-06 MD	2,160	2,484
ME	LTC-06 ME	2,040	2,589
MI	LTC-06	2,030	2,577
MN	LTC-06 MN	1,980	2,513
MO	LTC-06 MO	1,710	2,170
MS	LTC-06 MS	1,630	2,069
MT	LTC-06 MT	1,990	2,526
NC	LTC-06 NC	1,790	2,272
ND	LTC-06 ND	1,860	2,361
NE	LTC-06 NE	1,950	2,475
NH	LTC-06 NH	2,570	3,262
NJ	LTC-06 NJ	2,500	3,173
NM	LTC-06 NM	1,700	2,158
NV	LTC-06 NV	2,260	2,868
NY	LTC-06 NY	2,890	3,668
NY	SG-06 NY	2,610	3,313
OH	LTC-06 OH	1,950	2,475
OH	SG-06 OH	2,470	3,135
OK	LTC-06 OK	1,700	2,158
OR	LTC-06 OR	1,850	2,348
PA	LTC-06 PA	2,280	2,894
PA	LTC-06 FR PA	1,740	2,208
RI	LTC-06 RI	2,270	2,881
SC	LTC-06 SC	1,980	2,513
SD	LTC-06 SD	1,760	2,234
TN	LTC-06 TN	1,740	2,208
TX	LTC-06 TX	1,710	2,170
UT	LTC-06 UT	1,910	2,424
VA	LTC-06 VA	1,860	2,361
VT	LTC-06 VT	2,450	3,110
WA	LTC-06 WA	2,030	2,577
WI	LTC-06 WI	2,140	2,716
WV	LTC-06	1,970	2,500
WY	LTC-06	1,970	2,500
Leading Edge Average		1,990	2,526

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

14. Number of Policyholders

The table below summarizes, as of 12/31/2015, the number of policies in force and their 2015 annualized premium that will be affected by this rate increase in your state.

State	Policy Form	Annual Premium	Policy Count
AK	LTC-06 AK	68,861	29
AL	LTC-06	385,652	236
AR	LTC-06 AR	419,323	256
AZ	LTC-06 AZ	957,466	472
CO	LTC-06 CO	3,037,023	1,587
CT	LTC-06 CT	710,755	289
DC	LTC-06 DC	231,018	81
DE	LTC-06 DE	192,893	83
FL	LTC-06 FL	6,364,525	3,143
GA	LTC-06 GA	1,412,586	681
HI	LTC-06 HI	648,825	263
IA	LTC-06 IA	1,793,856	1,058
ID	LTC-06 ID	558,967	369
IL	LTC-06 IL	2,196,264	1,114
IN	LTC-06 IN	306,235	147
KS	LTC-06 KS	1,056,962	644
KY	LTC-06 KY	1,084,241	577
LA	LTC-06 LA	497,037	296
MA	LTC-06 MA	3,304,456	1,236
MD	LTC-06 MD	2,729,384	1,262
ME	LTC-06 ME	642,443	315
MI	LTC-06	1,436,952	709
MN	LTC-06 MN	2,282,188	1,153
MO	LTC-06 MO	1,333,513	779
MS	LTC-06 MS	678,209	417
MT	LTC-06 MT	244,547	123
NC	LTC-06 NC	1,955,865	1,095
ND	LTC-06 ND	491,353	264
NE	LTC-06 NE	1,066,940	548
NH	LTC-06 NH	694,688	270
NJ	LTC-06 NJ	3,786,404	1,515
NM	LTC-06 NM	283,246	167
NV	LTC-06 NV	189,748	84
NY	LTC-06 NY	1,292,561	448
NY	SG-06 NY	711,315	273
OH	LTC-06 OH	2,068,895	1,061
OH	SG-06 OH	447,961	181
OK	LTC-06 OK	875,525	514
OR	LTC-06 OR	1,222,570	661
PA	LTC-06 PA	1,025,291	450
PA	LTC-06 FR PA	540,288	311
RI	LTC-06 RI	480,254	212
SC	LTC-06 SC	1,074,922	542
SD	LTC-06 SD	525,446	299
TN	LTC-06 TN	2,630,093	1,511

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

TX	LTC-06 TX	3,604,684	2,113
UT	LTC-06 UT	246,390	129
VA	LTC-06 VA	4,111,951	2,213
VT	LTC-06 VT	147,201	60
WA	LTC-06 WA	2,137,209	1,055
WI	LTC-06 WI	1,412,021	660
WV	LTC-06	120,424	61
WY	LTC-06	120,049	61
Leading Edge Total		67,837,473	34,077

15. Reserves

Active Life Reserves have not been used in this rate increase demonstration. Minimum Statutory Claim reserves as of 12/31/2015 have been discounted to the date of incurral of each respective claim and included in the historical incurred claims. Incurred But Not Reported claim reserves as of 12/31/2015 have also been allocated to the calendar year of incurral and included in historic incurred claims.

16. Analysis Performed

Original Pricing Assumptions

[REDACTED]

Recent Experience

As part of the inforce management of the business, the Company monitored the performance of the business by completing periodic analysis for morbidity, voluntary lapse rates, and mortality. The findings from these analyses were used in projecting the inforce business to determine the effect of experience on the projected lifetime loss ratio. The most current studies show significant unfavorable trends since the study used in the original pricing. In general claims, particularly at higher ages, continue to last longer than expected, lapses are lower than expected, and a higher percentage of claim terminations are due to recoveries (as opposed to death) than expected.

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

The following tables show in aggregate how our new assumptions (Expected) compare to actual experience:

Morbidity

Experience period: Inception through 9/30/2014. Duration 10+ are used for incidence, duration 5+ for claim termination, and all durations for utilization. The following charts show key experience compared to revised assumptions.

Incidence

Duration	A/E
1-3	101%
4-6	101%
7-9	99%
10+	97%
Total	98%

Claim Terminations

Benefit Period	A/E
<10 years	99%
10+ years	97%
Total	99%

Utilization

Inflation	A/E
None / GPO	98%
Simple	98%
Compound	98%
Total	98%

Voluntary Lapses

Experience period: 12/31/2009 - 12/31/2014

Duration	Lapse A/E by Amount	
	Without Inflation	With Inflation
1	100%	100%
2	103%	100%
3-5	100%	101%
6-10	99%	100%
11-15	100%	101%
16+	96%	97%
Total per inflation	100%	100%
TOTAL	100%	

Note that the lapse study removed all policies which had undergone prior rate increases except for the 2008 re-rate policies which are now allowed to re-enter the study after their first year since re-rate, provided they have not subsequently received another rate increase.

Mortality

Experience period: 12/31/2009 - 12/31/2014

Duration	A/E by Amount
1-5	96%
6-10	96%
11+	101%
Total	99%

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

17. Requested Rate Increase

The Company is requesting a flat rate increase of 15.0%. Rate increases were derived as follows:

1. Upon reviewing the impact of our recent assumption changes on this product, it was discovered that a rate increase should have been requested after our 2010 Experience Studies. We have calculated a 2010 rate increase based on nationwide actual experience and then projected future experience, assuming they were calculated in 2010 and with an implementation date of 7/1/11. This lowered the rate increases needed to revert to the original lifetime loss ratio target, which was adjusted to reflect historical CPI. As such, John Hancock is absorbing the cost of delay in requesting this rate increase, rather than passing on the costs to insureds. The resulting increase in rates was then adjusted to satisfy the rate stability rule ensuring no less than an 85% loss ratio on the rate increase portion, while applying the original loss ratio on the original rate schedule (as the original loss ratio was higher than 58%). After application of this restriction, we determined the amount of the rate increase attributable to our 2010 Experience Studies is a flat 8.4%.
2. Assuming the 2010 rate increase was approved, we then calculated the additional amount needed to account for the unfavorable trends from our 2016 Experience Studies. The Company determined the projected lifetime loss ratio for this form based on nationwide actual experience and projected future experience. We then determined the amount of rate increase (21.5%) that would be needed in order to revert to the loss ratio that would have resulted from our 2010 rate increase, adjusted to reflect historical CPI.
3. We ensured that the total proposed rate increases did not result in premium rates that exceed rates for older issue ages or the most recent traditional LTC rates that have been filed with the Interstate Compact for new business under the ICC12-LTC-12 policy form, adjusted for benefit differences and changes in underwriting guidelines and risk classification (this is demonstrated in **Appendix A** using LTC-06 MD as an example). As this product (ICC12-LTC-12) is no longer open for new business, the most recently filed new business LTC rates for this product were adjusted to account for the average impact of the assumption updates due to the 2016 Experience Studies. An adjustment of 9.5% was applied to all rates to reflect these updates. After the application of this restriction the average 2016 rate increase for the forms listed in this memo is a flat 21.5%.
4. We ensured that the resulting overall increase in rates satisfied the rate stability rule ensuring no less than an 85% loss ratio on the rate increase portion, while applying the original loss ratio on the original rate schedule (as the original loss ratio was higher than 58%). After application of this restriction, the initial flat 2016 rate increase solved for in step 2 was adjusted from 21.5 % to 17.1%.
5. This results in an overall cumulative flat requested rate increase of 26.9%, 8.4% from 2010 and 17.1% from 2016. The rate stability rule is demonstrated at the bottom of **Exhibit 1** where it can be seen that the sum of past and future projected incurred claims is not less than the sum of the original premium times the original loss ratio and the rate increase premium times the 85% loss ratio requirement.
6. As per the request of the Maryland Department of Insurance, the rate increase has been capped at 15.0% with the understanding that the Company intends to pursue additional rate increases on an annual basis until the present value of the ultimate rate increases and our target loss ratio (71.5%) based on the full one-time increase are achieved. Due to the delayed implementation, the ultimate rate increases will be greater than the required full one-time rate increase of 26.9%.

Appendix B1 contains the new proposed rate tables for all policy forms included with this filing. Please note that the actual rates implemented may vary slightly from those in Appendix B1 due to implementation rounding algorithms.

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

Exhibit 1 contain nationwide past premium and claims experience and future premium and claim projections and illustrates that the anticipated lifetime loss ratio with the required full one-time rate increases of 26.9% and the previously-stated margin for moderately adverse experience is 71.5% and 75.5% with the capped rate increase of 15%, well in excess of the minimum loss ratio of 60% as well as greater than the original pricing loss ratio of 69.4%. The lifetime loss ratio as of 12/31/2015 is calculated as the sum of accumulated past and discounted future claims divided by the sum of accumulated past and discounted future earned premium where accumulation and discounting occur at the maximum statutory valuation discount rate. In Exhibit 1, a portion of the rate increase is applied historically (starting in calendar year 2011). Refer to section 17.1 for background on this assumption.

In addition, **Exhibit 1** contains the original expected loss ratio projections with the lifetime loss ratio calculated as stated above, adjusted for the following.

- For contracts with the CPI linked inflation rider, both past and future benefits were updated to reflect the impact of actual past CPI rates differing from the original pricing assumption. In this way, the current projected benefits and the benefits projected in original pricing are based on the same level of CPI indices. This adjustment is needed to neutralize the impact on the rate increase for differences in actual past CPI from original pricing assumptions; i.e. the need for a rate increase and the level of a rate increase is not dependent on changes in the CPI levels. Adjustments will be made in both directions (i.e. when actual CPI is higher or lower than original pricing).
- Updated to reflect the actual mix of business sold.

For contracts with CPI-linked inflation, we are using the same future CPI assumptions as were used in original pricing (2.9%) in order to ensure that the need for a rate increase and the level of a rate increase is not dependent on changes to future CPI levels.

Furthermore, **Exhibit 1** demonstrates that the calculated loss ratio respects the applicable pre or post stability form requirements:

Post-stability form requirements:

The sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

1. Accumulated value of the initial earned premium times the original assumed lifetime loss ratio (which was higher than 58%),
2. 85% of the accumulated value of prior premium rate schedule increases,
3. Present value of future projected initial earned premium times the original assumed lifetime loss ratio, and
4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

Pre-stability form requirements:

The sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

1. Accumulated value of the initial earned premium times the original assumed lifetime loss ratio (which was higher than 60%),
2. 80% of the accumulated value of prior premium rate schedule increases,
3. Present value of future projected initial earned premium times the original assumed lifetime loss ratio, and

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

4. 80% of the present value of future projected premium in excess of the projected initial earned premium.

18. History of Previous Rate Revisions

There have been no prior rate increases on these forms.

19. Past Losses Testing

Preventing companies from recouping past losses was the subject of a recent discussion by the NAIC in late 2013. The accepted methodology which was incorporated into the 2014 LTC Model Regulation defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

“Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.”

This methodology is applied in **Exhibit 1**. As there have been no prior rate actions or assumption changes, the original assumptions reflect our expected claims. At the bottom of **Exhibit 1**, past incurred claims based on original assumptions are more than the past actual incurred claims, therefore, no past losses are being recouped.

20. Data Credibility

Regarding the credibility of data for younger blocks of business such as Leading Edge, the Company would like to draw attention to the American Academy of Actuaries Issue Brief “*Understanding Premium Rate Increases on Private LTCI Policyholders 060216.pdf*”, which has been included with this filing. The brief provides guidance on determining the need for premium rate increases on pages 4 and 5. This guidance includes a discussion on determining assumptions used for projections, particularly in situations where experience credibility may be low. Because of the long duration nature of Long Term Care policies, claims are often not seen in early durations which leads to lower credibility in actual experience for younger groups of policies. In situations where this is the case, the Actuarial Standards of Practice require that industry data or company data for older, similar business be used to set assumptions. Specifically, the brief states the following:

“Section 3.2.1 of Actuarial Standard of Practice No. 18, Long-Term Care Insurance, requires actuaries to use alternative data sources such as public data or experience from the insurance company’s older, similar policy forms for identifying reasonable assumptions. Waiting until there is adequate claim information on each policy form could result in much larger, less affordable rate increases.”

Since Leading Edge is a younger block of business, our proposed rate increases on this form are based on our experience from this form as well as similar forms where we have over 20 years of experience. Overall, our unfavorable morbidity experience is at later durations and older attained ages, where we have significant data on our older plans and less on younger ones. With our combined data we are able to make credible decisions regarding future assumptions, in accordance with ASOP 18. Focusing solely on past experience for this product

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

discredits our future projections and prevents us from acting on this information in a timely manner. Delaying rate increases until we have amassed similar experience on this particular policy form would take a considerable amount of time and would result in much higher rate increases for our customers which would be more difficult to manage and would require larger reductions in benefits in order to mitigate them. For example, if we were to delay rate increases on the Leading Edge plan for 10 years, with experience continuing as currently expected, we would require approximately an average rate increase of 65% compared to the required full one-time rate increase of 26.9%.

21. Proposed Effective Date

These rates will be effective on the next policy anniversary date, following at least a 90 day policyholder notification period.

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Leading Edge
May 23, 2018

22. 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 rendering this opinion and am familiar with the requirements for filing long-term care insurance premiums and filing for increases in long-term care insurance premiums. This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

The preceding Actuarial Memorandum contains:

- a) the assumptions on which this certification is based;
- b) the adjustments to prior assumptions with an explanation of the reasons previous assumptions were not realized;
- c) a lifetime projection of the prior premium rate schedules and incurred claims plus future expected premiums and claims which demonstrates that the revised premium rate schedule meets the loss ratios standards and necessary details of this state; and
- d) disclosure of the manner, if any, in which reserves have been recognized.

In my opinion, the rate increase proposed in this filing will enhance premium adequacy, but further rate actions are necessary and we will be filing for those in the future.

I have reviewed and taken into consideration the policy design and coverage provided, and our current underwriting and claims adjudication processes.

In forming my opinion, I have used actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary. Based on these assumptions or statutory requirements where necessary, the premium rate filing is in compliance with the loss ratio standards of this state.

The basis for contract reserves has been previously filed and there is no anticipation of any changes.



Diane Cronin, FSA, MAAA
Actuary
John Hancock Life Insurance Company

Appendix A - Comparison to New Business Rates (Leading Edge Series)

Rates shown are for a 100-day EP, single, Standard policyholder, and are per \$10 daily benefit

Inflation Option: 5% Compound Guaranteed Purchase

New Business Rates adjusted for Benefit Differences* :				LTC-06 MD Rates after Requested Rate Increases <i>excluding additional rate increase due to cost of delay :</i>				LTC-06 MD Rates after Requested Rate Increases <i>including additional rate increase due to cost of delay :</i>				LTC-06 MD 2016 Required Full One-Time Rate Increases (%) :			
Issue	Benefit Period			Issue	Benefit Period			Issue	Benefit Period			Issue	Benefit Period		
Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider
18-29	44.63	53.79	71.72	18-29	15.23	20.31	29.19	18-29	15.23	20.31	29.19	18-29	27%	27%	27%
30	46.92	56.76	81.99	30	16.50	22.85	33.00	30	16.50	22.85	33.00	30	27%	27%	27%
31	48.07	58.59	82.03	31	17.77	24.12	34.27	31	17.77	24.12	34.27	31	27%	27%	27%
32	49.90	60.88	85.24	32	19.04	25.38	36.81	32	19.04	25.38	36.81	32	27%	27%	27%
33	51.04	63.40	86.45	33	20.31	26.65	38.08	33	20.31	26.65	38.08	33	27%	27%	27%
34	52.87	65.69	89.58	34	21.58	27.92	40.62	34	21.58	27.92	40.62	34	27%	27%	27%
35	54.02	68.21	90.94	35	22.85	29.19	41.88	35	22.85	29.19	41.88	35	27%	27%	27%
36	56.30	70.50	92.19	36	24.12	31.73	45.69	36	24.12	31.73	45.69	36	27%	27%	27%
37	58.14	73.47	101.73	37	25.38	33.00	48.23	37	25.38	33.00	48.23	37	27%	27%	27%
38	59.28	75.99	101.73	38	26.65	34.27	49.50	38	26.65	34.27	49.50	38	27%	27%	27%
39	61.11	78.96	101.73	39	27.92	36.81	52.04	39	27.92	36.81	52.04	39	27%	27%	27%
40	63.40	81.94	102.42	40	29.19	38.08	54.58	40	29.19	38.08	54.58	40	27%	27%	27%
41	65.23	83.77	103.48	41	30.46	40.62	57.12	41	30.46	40.62	57.12	41	27%	27%	27%
42	67.06	86.06	111.37	42	33.00	43.15	60.92	42	33.00	43.15	60.92	42	27%	27%	27%
43	68.89	87.89	112.30	43	34.27	45.69	64.73	43	34.27	45.69	64.73	43	27%	27%	27%
44	70.72	90.87	121.15	44	36.81	48.23	68.54	44	36.81	48.23	68.54	44	27%	27%	27%
45	72.56	92.70	121.97	45	38.08	50.77	72.35	45	38.08	50.77	72.35	45	27%	27%	27%
46	74.39	95.67	124.37	46	40.62	53.31	76.15	46	40.62	53.31	76.15	46	27%	27%	27%
47	76.68	97.50	125.36	47	43.15	57.12	79.96	47	43.15	57.12	79.96	47	27%	27%	27%
48	79.19	100.48	133.97	48	45.69	59.65	85.04	48	45.69	59.65	85.04	48	27%	27%	27%
49	81.02	103.00	140.45	49	48.23	63.46	90.12	49	48.23	63.46	90.12	49	27%	27%	27%
50	83.31	105.29	141.91	50	50.77	67.27	95.19	50	50.77	67.27	95.19	50	27%	27%	27%
51	85.83	110.09	151.38	51	53.31	69.81	100.27	51	53.31	69.81	100.27	51	27%	27%	27%
52	88.81	113.75	159.26	52	55.85	72.35	105.35	52	55.85	72.35	105.35	52	27%	27%	27%
53	92.24	118.56	175.47	53	59.65	74.88	110.42	53	59.65	74.88	110.42	53	27%	27%	27%
54	95.90	122.68	184.02	54	62.19	77.42	115.50	54	62.19	77.42	115.50	54	27%	27%	27%
55	98.88	127.49	193.59	55	66.00	79.96	121.85	55	66.00	79.96	121.85	55	27%	27%	27%
56	104.83	135.27	205.24	56	69.81	86.31	129.46	56	69.81	86.31	129.46	56	27%	27%	27%
57	110.78	143.05	216.88	57	73.62	91.38	138.35	57	73.62	91.38	138.35	57	27%	27%	27%
58	116.73	150.83	228.53	58	78.69	99.00	147.23	58	78.69	99.00	147.23	58	27%	27%	27%
59	123.37	159.76	246.49	59	82.50	105.35	157.38	59	82.50	105.35	157.38	59	27%	27%	27%
60	130.46	169.37	265.50	60	87.58	112.96	167.54	60	87.58	112.96	167.54	60	27%	27%	27%
61	140.53	181.27	280.98	61	95.19	123.12	180.23	61	95.19	123.12	180.23	61	27%	27%	27%
62	150.60	193.86	302.07	62	104.08	133.27	194.19	62	104.08	133.27	194.19	62	27%	27%	27%
63	162.51	207.60	320.42	63	112.96	144.69	209.42	63	112.96	144.69	209.42	63	27%	27%	27%
64	174.41	222.47	349.60	64	123.12	157.38	224.65	64	123.12	157.38	224.65	64	27%	27%	27%
65	187.91	238.04	368.28	65	134.54	171.35	242.42	65	134.54	171.35	242.42	65	27%	27%	27%
66	205.76	261.15	400.74	66	148.50	189.12	266.54	66	148.50	189.12	266.54	66	27%	27%	27%
67	226.36	286.10	433.62	67	162.46	208.15	293.19	67	162.46	208.15	293.19	67	27%	27%	27%
68	247.65	314.03	475.52	68	178.96	229.73	322.38	68	178.96	229.73	322.38	68	27%	27%	27%
69	271.91	344.92	515.15	69	196.73	253.85	355.38	69	196.73	253.85	355.38	69	27%	27%	27%
70	297.77	378.11	556.05	70	215.77	279.23	390.92	70	215.77	279.23	390.92	70	27%	27%	27%
71	326.61	417.71	602.38	71	242.42	312.23	431.54	71	242.42	312.23	431.54	71	27%	27%	27%
72	357.06	460.28	651.34	72	274.15	347.77	475.96	72	274.15	347.77	475.96	72	27%	27%	27%
73	391.16	508.12	700.26	73	308.42	388.38	525.46	73	308.42	388.38	525.46	73	27%	27%	27%
74	427.55	560.07	759.49	74	346.50	434.08	580.04	74	346.50	434.08	580.04	74	27%	27%	27%
75	468.52	617.98	818.41	75	390.92	484.85	640.96	75	390.92	484.85	640.96	75	27%	27%	27%
76	542.72	669.22	893.66	76	435.35	540.69	714.58	76	435.35	540.69	714.58	76	27%	27%	27%
77	601.34	743.55	991.41	77	486.11	602.88	795.81	77	486.11	602.88	795.81	77	27%	27%	27%
78	670.16	819.54	1098.10	78	541.96	671.42	885.92	78	541.96	671.42	885.92	78	27%	27%	27%
79	743.19	907.90	1217.23	79	604.15	748.85	987.46	79	604.15	748.85	987.46	79	27%	27%	27%
80	1228.01	1489.04	2005.16	80	665.08	823.73	1086.46	80	665.08	823.73	1086.46	80	27%	27%	27%
81	1327.62	1607.12	2166.12	81	731.08	906.23	1195.61	81	731.08	906.23	1195.61	81	27%	27%	27%
82	1431.22	1733.43	2332.15	82	804.69	996.35	1314.92	82	804.69	996.35	1314.92	82	27%	27%	27%
83	1542.26	1866.36	2514.56	83	884.65	1096.61	1446.92	83	884.65	1096.61	1446.92	83	27%	27%	27%
84	1661.11	2005.36	2704.77	84	973.50	1205.77	1591.61	84	973.50	1205.77	1591.61	84	27%	27%	27%

* Benefit Differences between LTC-06 MD and ICC12-LTC-12:

LTC-06 MD provides benefit increases while on claim

LTC-06 MD does not have the Double Coverage for Accident Benefit or Return of Premium Prior to 65 Benefit

LTC-06 MD provides respite care and homemaker services, in addition to home health care and hospice care

ICC12-LTC-12 benefits paid under the Stay at Home Benefit will not reduce the Policy Limit

LTC-06 MD rates are for a 100 service-day EP, ICC12-LTC-12 rates are for a 90 service-day EP

ICC12-LTC-12 underwriting guidelines and classification are stricter than for LTC-06 MD

ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business

ICC12-LTC-12 5 yrs + 1M Rider rates are approximated by applying the ratio of [LTC-03 Lifetime (or 5 yrs + 1M Rider) / LTC-03 5 yrs] to the ICC12-LTC-12 5 yrs rates (LTC-03 was the last product in which we offered Lifetime benefit period option)

Appendix A - Comparison to New Business Rates (Leading Edge Series)

Rates shown are for a 100-day EP, single, Standard policyholder, and are per \$10 daily benefit

Inflation Option: Automatic Inflation

New Business Rates adjusted for Benefit Differences* :				LTC-06 MD Rates after Requested Rate Increases excluding additional rate increase due to cost of delay :				LTC-06 MD Rates after Requested Rate Increases including additional rate increase due to cost of delay :				LTC-06 MD 2016 Required Full One-Time Rate Increases (%) :			
Issue	Benefit Period			Issue	Benefit Period			Issue	Benefit Period			Issue	Benefit Period		
Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider	Age	3	5	5 years + 1M Rider
18-29	113.82	138.13	207.20	18-29	62.19	78.69	110.42	18-29	62.19	78.69	110.42	18-29	27%	27%	27%
30	119.84	145.45	221.08	30	66.00	82.50	116.77	30	66.00	82.50	116.77	30	27%	27%	27%
31	121.57	147.60	221.40	31	67.27	85.04	119.31	31	67.27	85.04	119.31	31	27%	27%	27%
32	122.64	149.97	224.95	32	68.54	86.31	121.85	32	68.54	86.31	121.85	32	27%	27%	27%
33	124.36	152.12	225.36	33	71.08	88.85	125.65	33	71.08	88.85	125.65	33	27%	27%	27%
34	126.51	154.92	226.84	34	72.35	90.12	128.19	34	72.35	90.12	128.19	34	27%	27%	27%
35	127.59	157.07	235.60	35	73.62	92.65	130.73	35	73.62	92.65	130.73	35	27%	27%	27%
36	129.31	159.43	236.40	36	74.88	95.19	134.54	36	74.88	95.19	134.54	36	27%	27%	27%
37	131.03	162.23	236.40	37	77.42	96.46	137.08	37	77.42	96.46	137.08	37	27%	27%	27%
38	133.18	164.38	241.09	38	78.69	99.00	140.88	38	78.69	99.00	140.88	38	27%	27%	27%
39	134.26	167.18	242.68	39	81.23	101.54	143.42	39	81.23	101.54	143.42	39	27%	27%	27%
40	135.98	169.98	244.34	40	82.50	104.08	147.23	40	82.50	104.08	147.23	40	27%	27%	27%
41	138.78	173.42	252.25	41	85.04	107.88	152.31	41	85.04	107.88	152.31	41	27%	27%	27%
42	140.50	176.86	254.89	42	88.85	111.69	157.38	42	88.85	111.69	157.38	42	27%	27%	27%
43	143.30	180.09	262.42	43	91.38	115.50	163.73	43	91.38	115.50	163.73	43	27%	27%	27%
44	145.66	183.53	270.20	44	95.19	119.31	168.81	44	95.19	119.31	168.81	44	27%	27%	27%
45	147.82	187.62	278.89	45	97.73	124.38	175.15	45	97.73	124.38	175.15	45	27%	27%	27%
46	150.61	191.49	287.24	46	101.54	128.19	181.50	46	101.54	128.19	181.50	46	27%	27%	27%
47	152.98	194.94	294.90	47	105.35	133.27	187.85	47	105.35	133.27	187.85	47	27%	27%	27%
48	155.13	198.81	295.79	48	109.15	137.08	194.19	48	109.15	137.08	194.19	48	27%	27%	27%
49	157.93	202.90	304.34	49	112.96	142.15	200.54	49	112.96	142.15	200.54	49	27%	27%	27%
50	160.29	206.77	312.56	50	116.77	147.23	208.15	50	116.77	147.23	208.15	50	27%	27%	27%
51	164.17	211.29	321.73	51	120.58	149.77	214.50	51	120.58	149.77	214.50	51	27%	27%	27%
52	166.96	216.45	336.70	52	123.12	153.58	219.58	52	123.12	153.58	219.58	52	27%	27%	27%
53	170.41	221.40	346.54	53	126.92	157.38	225.92	53	126.92	157.38	225.92	53	27%	27%	27%
54	173.20	226.56	356.72	54	130.73	159.92	232.27	54	130.73	159.92	232.27	54	27%	27%	27%
55	177.08	232.16	372.42	55	134.54	163.73	238.62	55	134.54	163.73	238.62	55	27%	27%	27%
56	182.24	239.04	382.47	56	140.88	171.35	250.04	56	140.88	171.35	250.04	56	27%	27%	27%
57	187.84	245.71	392.20	57	148.50	180.23	262.73	57	148.50	180.23	262.73	57	27%	27%	27%
58	194.08	252.60	394.97	58	156.12	187.85	275.42	58	156.12	187.85	275.42	58	27%	27%	27%
59	200.75	260.56	411.41	59	163.73	198.00	288.12	59	163.73	198.00	288.12	59	27%	27%	27%
60	206.98	267.88	415.21	60	171.35	206.88	302.08	60	171.35	206.88	302.08	60	27%	27%	27%
61	220.32	281.86	442.92	61	181.50	219.58	319.85	61	181.50	219.58	319.85	61	27%	27%	27%
62	234.31	296.49	464.65	62	190.38	233.54	338.88	62	190.38	233.54	338.88	62	27%	27%	27%
63	250.02	311.77	487.41	63	201.81	247.50	359.19	63	201.81	247.50	359.19	63	27%	27%	27%
64	266.15	328.12	516.24	64	213.23	262.73	379.50	64	213.23	262.73	379.50	64	27%	27%	27%
65	283.58	344.90	545.73	65	224.65	279.23	402.35	65	224.65	279.23	402.35	65	27%	27%	27%
66	304.02	372.87	592.21	66	241.15	303.35	436.61	66	241.15	303.35	436.61	66	27%	27%	27%
67	325.11	402.57	638.85	67	257.65	328.73	473.42	67	257.65	328.73	473.42	67	27%	27%	27%
68	347.92	435.49	683.71	68	276.69	356.65	512.77	68	276.69	356.65	512.77	68	27%	27%	27%
69	372.87	470.13	740.01	69	295.73	387.11	555.92	69	295.73	387.11	555.92	69	27%	27%	27%
70	399.34	507.99	794.56	70	317.31	420.11	602.88	70	317.31	420.11	602.88	70	27%	27%	27%
71	435.92	549.09	834.28	71	349.04	463.27	651.11	71	349.04	463.27	651.11	71	27%	27%	27%
72	476.15	594.06	884.77	72	384.58	510.23	701.88	72	384.58	510.23	701.88	72	27%	27%	27%
73	520.26	641.82	931.68	73	422.65	562.27	757.73	73	422.65	562.27	757.73	73	27%	27%	27%
74	568.67	693.89	983.70	74	465.81	620.65	817.38	74	465.81	620.65	817.38	74	27%	27%	27%
75	620.95	750.27	1035.13	75	512.77	684.11	882.11	75	512.77	684.11	882.11	75	27%	27%	27%
76	630.04	826.68	1143.70	76	561.00	748.85	974.77	76	561.00	748.85	974.77	76	27%	27%	27%
77	696.45	899.42	1253.61	77	614.31	819.92	1077.58	77	614.31	819.92	1077.58	77	27%	27%	27%
78	765.26	982.21	1376.67	78	673.96	898.61	1190.54	78	673.96	898.61	1190.54	78	27%	27%	27%
79	843.97	1075.58	1511.30	79	737.42	983.65	1316.19	79	737.42	983.65	1316.19	79	27%	27%	27%
80	1377.66	1742.33	2465.89	80	811.04	1082.65	1448.19	80	811.04	1082.65	1448.19	80	27%	27%	27%
81	1470.89	1858.27	2633.01	81	892.27	1190.54	1592.88	81	892.27	1190.54	1592.88	81	27%	27%	27%
82	1567.90	1981.66	2809.16	82	981.11	1309.84	1752.81	82	981.11	1309.84	1752.81	82	27%	27%	27%
83	1675.73	2114.49	3002.57	83	1078.85	1440.58	1927.96	83	1078.85	1440.58	1927.96	83	27%	27%	27%
84	1792.28	2259.61	3209.67	84	1186.73	1585.27	2120.88	84	1186.73	1585.27	2120.88	84	27%	27%	27%

* Benefit Differences between LTC-06 MD and ICC12-LTC-12:

LTC-06 MD does not have the Double Coverage for Accident Benefit or Return of Premium Prior to 65 Benefit

LTC-06 MD provides respite care and homemaker services, in addition to home health care and hospice care

ICC12-LTC-12 benefits paid under the Stay at Home Benefit will not reduce the Policy Limit

LTC-06 MD rates are for a 100 service-day EP, ICC12-LTC-12 rates are for a 90 service-day EP

ICC12-LTC-12 underwriting guidelines and classification are stricter than for LTC-06 MD

ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business

ICC12-LTC-12 5 yrs + 1M Rider rates are approximated by applying the ratio of [LTC-03 Lifetime (or 5 yrs + 1M Rider) / LTC-03 5 yrs] to the ICC12-LTC-12 5 yrs rates (LTC-03 was the last product in which we offered Lifetime benefit period option)

Appendix B1
John Hancock Life Insurance Company (U.S.A.)
LTC-06 MD
Premiums to be used only with those
that have not previously elected an inflation decrease option

Standard rates per \$10 of Daily Coverage
100 Day Elimination Period

Age	5% Compound Guaranteed Purchase			Automatic Inflation		
	Benefit Period			Benefit Period		
	3 Years	5 Years	5 Years + \$1M Rider	3 Years	5 Years	5 Years + \$1M Rider
18-29	13.80	18.40	26.45	56.35	71.30	100.05
30	14.95	20.70	29.90	59.80	74.75	105.80
31	16.10	21.85	31.05	60.95	77.05	108.10
32	17.25	23.00	33.35	62.10	78.20	110.40
33	18.40	24.15	34.50	64.40	80.50	113.85
34	19.55	25.30	36.80	65.55	81.65	116.15
35	20.70	26.45	37.95	66.70	83.95	118.45
36	21.85	28.75	41.40	67.85	86.25	121.90
37	23.00	29.90	43.70	70.15	87.40	124.20
38	24.15	31.05	44.85	71.30	89.70	127.65
39	25.30	33.35	47.15	73.60	92.00	129.95
40	26.45	34.50	49.45	74.75	94.30	133.40
41	27.60	36.80	51.75	77.05	97.75	138.00
42	29.90	39.10	55.20	80.50	101.20	142.60
43	31.05	41.40	58.65	82.80	104.65	148.35
44	33.35	43.70	62.10	86.25	108.10	152.95
45	34.50	46.00	65.55	88.55	112.70	158.70
46	36.80	48.30	69.00	92.00	116.15	164.45
47	39.10	51.75	72.45	95.45	120.75	170.20
48	41.40	54.05	77.05	98.90	124.20	175.95
49	43.70	57.50	81.65	102.35	128.80	181.70
50	46.00	60.95	86.25	105.80	133.40	188.60
51	48.30	63.25	90.85	109.25	135.70	194.35
52	50.60	65.55	95.45	111.55	139.15	198.95
53	54.05	67.85	100.05	115.00	142.60	204.70
54	56.35	70.15	104.65	118.45	144.90	210.45
55	59.80	72.45	110.40	121.90	148.35	216.20
56	63.25	78.20	117.30	127.65	155.25	226.55
57	66.70	82.80	125.35	134.55	163.30	238.05
58	71.30	89.70	133.40	141.45	170.20	249.55
59	74.75	95.45	142.60	148.35	179.40	261.05
60	79.35	102.35	151.80	155.25	187.45	273.70
61	86.25	111.55	163.30	164.45	198.95	289.80
62	94.30	120.75	175.95	172.50	211.60	307.05
63	102.35	131.10	189.75	182.85	224.25	325.45
64	111.55	142.60	203.55	193.20	238.05	343.85
65	121.90	155.25	219.65	203.55	253.00	364.55
66	134.55	171.35	241.50	218.50	274.85	395.60
67	147.20	188.60	265.65	233.45	297.85	428.95
68	162.15	208.15	292.10	250.70	323.15	464.60
69	178.25	230.00	322.00	267.95	350.75	503.70
70	195.50	253.00	354.20	287.50	380.65	546.25
71	219.65	282.90	391.00	316.25	419.75	589.95
72	248.40	315.10	431.25	348.45	462.30	635.95
73	279.45	351.90	476.10	382.95	509.45	686.55
74	313.95	393.30	525.55	422.05	562.35	740.60
75	354.20	439.30	580.75	464.60	619.85	799.25
76	394.45	489.90	647.45	508.30	678.50	883.20
77	440.45	546.25	721.05	556.60	742.90	976.35
78	491.05	608.35	802.70	610.65	814.20	1078.70
79	547.40	678.50	894.70	668.15	891.25	1192.55
80	602.60	746.35	984.40	734.85	980.95	1312.15
81	662.40	821.10	1083.30	808.45	1078.70	1443.25
82	729.10	902.75	1191.40	888.95	1186.80	1588.15
83	801.55	993.60	1311.00	977.50	1305.25	1746.85
84	882.05	1092.50	1442.10	1075.25	1436.35	1921.65
85	970.60	1201.75	1585.85	1183.35	1580.10	2113.70
86	1067.20	1322.50	1744.55	1301.80	1737.65	2325.30
87	1174.15	1454.75	1919.35	1431.75	1911.30	2557.60
88	1291.45	1600.80	2111.40	1575.50	2102.20	2812.90
89	1420.25	1760.65	2323.00	1733.05	2312.65	3094.65
90	1562.85	1936.60	2555.30	1906.70	2543.80	3404.00
91	1719.25	2129.80	2810.60			
92	1891.75	2342.55	3091.20			
93	2081.50	2577.15	3400.55			
94	2289.65	2834.75	3740.95			
95	2518.50	3118.80	4114.70			
96	2770.35	3430.45	4526.40			
97	3047.50	3773.15	4979.50			
98	3352.25	4150.35	5477.45			
99	3688.05	4565.50	6024.85			
100+	4057.20	5022.05	6627.45			

Rates shown below the line are for Shared Care 3 yr purchase on exhaustion of benefits at attained age rates, or for attained age GPO purchases and GIO purchases only