Union Security Insurance Company
Actuarial Memorandum for Inforce Rate Increase – 6060 Policy Series
July 20, 2026

Product Name	Form Number	Issue Date Range
Comprehensive TQ	6062-MD	Nov 1999 - Nov 2002
Comprehensive Enhanced TQ	6063-MD	Oct 1999 - Mar 2003

1. Scope & Purpose

This memorandum consists of materials which support the development of new premium rates for the above captioned policy series forms and their associated riders. 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.

Union Security Insurance Company, formerly known as Fortis Benefits Insurance Company, was a subsidiary of Fortis, Inc. in 2000, when John Hancock Life Insurance Company entered into a 100% coinsurance arrangement with Fortis Inc. Through this coinsurance arrangement, John Hancock assumed the administration and servicing, the financial risk, and responsibility for paying claims and maintaining sufficient reserves for these policies.

2. Requested Rate Increase

On this block we are targeting a 95.2% Lifetime Loss Ratio. At this time the Company will be filing a rate increase of 15% per year over 5 years, which will bring the Lifetime Loss Ratio from 140.0% to 132.0%. The Company intends to pursue additional rate increases in the future to achieve the certified lifetime loss ratio.

In the rate schedules by policy form, **Appendix B1** contains the new proposed rate tables for all policy forms included with this filing for those policyholders that *did not* elect an inflation reduction option as part of the 2016 rate increase filing.

In the rate schedules by policy form, **Appendix B2** contains the new proposed rate tables for all policy forms included with this filing for those policyholders that *did* elect an inflation reduction option as part of the 2016 rate increase filing.

Please note that the actual rates implemented may vary slightly from those in Appendix B due to implementation rounding algorithms.

Exhibit 1 contains nationwide past premium and claims experience as well as future premium and claim projections. It illustrates that the anticipated lifetime loss ratio with the requested rate increase is 132.0%, which is higher than the target loss ratio due to the cap on the justified rate increase. The loss ratio is well in excess of the minimum loss ratio of 60% as well as greater than the original pricing loss ratio of 71.1%. The lifetime loss ratio as of 12/31/2023 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. The maximum statutory valuation discount rate is 4.5%.

Exhibit 1 also contains the original expected loss ratio projections, adjusted for the actual mix of business issued, with the lifetime loss ratio also calculated as stated above.

3. Nationwide Loss Ratio Exhibit (Exhibit 1)

Fortis 6000s (Including 4062-NY & 4063-NY)

		Original Assumptions			Historical & Projected Experience Before Proposed Rate Increase			Historical and Projected Experience With Proposed Rate Increase			With Proposed Rate Increase After Cap		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1998	164,709	1,731,260	10%	-	5,035,849	0%	-	5,035,849	0%	-	5,035,849	0%
	1999	1,879,681	20,060,909	9%	198,180	28,875,542	1%	198,180	28,875,542	1%	198,180	28,875,542	1%
	2000	4,651,020	45,173,421	10%	392,500	54,703,375	1%	392,500	54,703,375	1%	392,500	54,703,375	1%
	2001	7,745,621	63,229,147	12%	3,528,918	71,649,158	5%	3,528,918	71,649,158	5%	3,528,918	71,649,158	5%
	2002	10,446,822	66,081,455	16%	5,587,214	75,014,396	7%	5,587,214	75,014,396	7%	5,587,214	75,014,396	7%
	2003	12,985,873	62,648,160	21%	10,541,202	74,715,067	14%	10,541,202	74,715,067	14%	10,541,202	74,715,067	14%
	2004	15,345,145	58,528,892	26%	10,603,446	73,946,465	14%	10,603,446	73,946,465	14%	10,603,446	73,946,465	14%
	2005	17,469,295	54,948,776	32%	15,141,704	73,574,889	21%	15,141,704	73,574,889	21%	15,141,704	73,574,889	21%
Historical	2006	19,310,101	51,717,673	37%	19,362,016	72,937,994	27%	19,362,016	72,937,994	27%	19,362,016	72,937,994	27%
Experience	2007	20,948,863	48,698,610	43%	26,577,009	72,333,362	37%	26,577,009	72,333,362	37%	26,577,009	72,333,362	37%
	2008	22,491,129	45,817,812	49%	37,406,459	71,315,848	52%	37,406,459	71,315,848	52%	37,406,459	71,315,848	52%
	2009	24,027,681	43,048,514	56%	44,221,988	69,791,019	63%	44,221,988	69,791,019	63%	44,221,988	69,791,019	63%
	2010	25,575,031	40,372,567	63%	51,621,701	74,555,700	69%	51,621,701	74,555,700	69%	51,621,701	74,555,700	69%
	2011	27,128,872	37,773,441	72%	60,498,932	75,201,166	80%	60,498,932	75,201,166	80%	60,498,932	75,201,166	80%
	2012	28,672,937	35,245,944	81%	62,420,980	65,155,594	96%	62,420,980	65,155,594	96%	62,420,980	65,155,594	96%
	2013	30,197,293	32,790,100	92%	73,282,963	62,795,979	117%	73,282,963	62,795,979	117%	73,282,963	62,795,979	117%
	2014	31,687,185	30,412,170	104%	70,446,822	63,221,900	111%	70,446,822	63,221,900	111%	70,446,822	63,221,900	111%
	2015	33,112,954	28,127,643	118%	92,958,369	67,279,503	138%	92,958,369	67,279,503	138%	92,958,369	67,279,503	138%
	2016	34,450,372	25,945,435	133%	100,672,215	61,858,914	163%	100,672,215	61,858,914	163%	100,672,215	61,858,914	163%
	2017	35,681,329	23,859,088	150%	111,948,044	55,219,300	203%	111,948,044	55,219,300	203%	111,948,044	55,219,300	203%
	2018	36,791,960	21,856,121	168%	122,176,102	56,084,003	218%	122,176,102	56,084,003	218%	122,176,102	56,084,003	218%
	2019	37,764,880	19,934,009	189%	119,794,163	57,850,762	207%	119,794,163	57,850,762	207%	119,794,163	57,850,762	207%
	2020	38,568,744	18,095,301	213%	130,202,597	53,950,671	241%	130,202,597	53,950,671	241%	130,202,597	53,950,671	241%
	2021	39,186,320	16,346,176	240%	146,793,967	48,905,855	300%	146,793,967	48,905,855	300%	146,793,967	48,905,855	300%
	2022	39,609,154	14,692,066	270%	158,336,086	44,088,197	359%	158,336,086	44,088,197	359%	158,336,086	44,088,197	359%
	2023	39,822,792	13,136,798	303%	167,046,976	39,268,554	425%	167,046,976	39,268,554	425%	167,046,976	39,268,554	425%
	2024	39,812,410	11,682,313	341%	177,230,310	37,232,747	476%	176,432,773	143,492,999	123%	176,432,773	39,000,358	452%
	2025	39,556,334	10,329,544	383%	183,773,316	34,003,452	540%	177,984,457	252,133,273	71%	177,984,457	40,005,917	445%
	2026	39,059,150	9,080,451	430%	187,065,734	30,849,866	606%	180,331,367	233,633,642	77%	180,331,367	41,701,058	432%
	2027	38,319,871	7,934,324	483%	188,378,990	27,801,224	678%	181,597,346	210,545,531	86%	181,597,346	43,217,094	420%
	2028	37,333,327	6,888,425	542%	189,797,529	24,872,923	763%	182,964,818	188,368,778	97%	182,964,818	44,464,795	411%
	2029	36,096,143	5,940,119	608%	188,947,810	22,082,965	856%	182,145,689	167,239,744	109%	182,145,689	42,678,106	427%
	2030	34,618,415	5,086,715	681%	186,042,761	19,454,586	956%	179,345,221	147,334,376	122%	179,345,221	37,721,436	475%
	2031	32,943,902	4,325,909	762%	181,186,214	17,011,724	1065%	174,663,510	128,833,986	136%	174,663,510	32,984,855	530%
Projected	2032	31,107,598	3,654,411	851%	174,648,915	14,769,920	1182%	168,361,554	111,856,245	151%	168,361,554	28,638,111	588%
Future	2033	29,127,984	3,065,468	950%	166,545,711	12,733,946	1308%	160,550,066	96,437,312	166%	160,550,066	24,690,463	650%
Experience	2034	27,012,976	2,550,937	1059%	157,206,668	10,900,459	1442%	151,547,228	82,551,863	184%	151,547,228	21,135,426	717%
	2035	24,786,348	2,104,565	1178%	146,733,727	9,263,521	1584%	141,451,313	70,154,927	202%	141,451,313	17,961,488	788%
	2036	22,511,945	1,722,441	1307%	135,480,280	7,814,651	1734%	130,602,990	59,182,281	221%	130,602,990	15,152,205	862%
	2037	20,248,229	1,399,672	1447%	123,623,446	6,543,950	1889%	119,173,002	49,558,950	240%	119,173,002	12,688,382	939%
	2038	18,022,902	1,128,860	1597%	111,574,981	5,439,408	2051%	107,558,282	41,193,979	261%	107,558,282	10,546,731	1020%
	2039	15,805,083	902,984	1750%	99,674,037	4,488,172	2221%	96,085,771	33,990,031	283%	96,085,771	8,702,333	1104%
	2040	13,606,822	716,317	1900%	88,151,047	3,676,263	2398%	84,977,609	27,841,246	305%	84,977,609	7,128,084	1192%
	2041	11,488,390	563,479	2039%	77,058,811	2,989,691	2577%	74,284,694	22,641,666	328%	74,284,694	5,796,856	1281%
	2042	9,525,727	438,900	2170%	66,592,174	2,414,440	2758%	64,194,856	18,285,151	351%	64,194,856	4,681,475	1371%
	2043	7,735,357	338,114	2288%	57,040,824	1,937,100	2945%	54,987,354	14,670,137	375%	54,987,354	3,755,937	1464%
	2044	6,164,738	258,396	2386%	48,511,822	1,543,901	3142%	46,765,396	11,692,347	400%	46,765,396	2,993,545	1562%
	2045	4,862,199	196,571	2474%	40,767,154	1,222,774	3334%	39,299,537	9,260,367	424%	39,299,537	2,370,895	1658%
	2046	3,805,297	148,805	2557%	33,946,823	962,691	3526%	32,724,737	7,290,696	449%	32,724,737	1,866,608	1753%
	2047	2,941,490	111,732	2633%	28,079,434	753,743	3725%	27,068,574	5,708,281	474%	27,068,574	1,461,469	1852%
	2048	2,231,308	83,562	2670%	23,085,813	586,990	3933%	22,254,724	4,445,417	501%	22,254,724	1,138,143	1955%
	2049	1,697,786	62,640	2710%	18,829,958	454,848	4140%	18,152,079	3,444,673	527%	18,152,079	881,926	2058%
	2050	1,282,291	46,914	2733%	15,225,909	350,797	4340%	14,677,777	2,656,673	552%	14,677,777	680,178	2158%

Note: Please refer to the Actuarial Memorandum, section "Ensuring No Cross-Subsidization Between States", for adjustments made to experience exhibits

Values as of 12/31/2023 (discounted at maximum statutory valuation rates)

	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
Past :	973,135,301	1,849,639,576	52.6%	2,272,142,040	2,918,893,698	77.8%	2,272,142,040	2,918,893,698	77.8%	2,272,142,040	2,918,893,698	77.8%
Future :	387,024,880	64,544,336	599.6%	2,145,008,662	236,081,839	908.6%	2,074,023,721	1,647,401,352	125.9%	2,074,023,721	372,426,797	556.9%
Lifetime :	1,360,160,180	1,914,183,912	71.1%	4,417,150,701	3,154,975,537	140.0%	4,346,165,761	4,566,295,050	95.2%	4,346,165,761	3,291,320,495	132.0%

Total Incurred Claims exceed Total Initial Premiums x max(58%, Original Pricing Loss Ratio) + Increased Premiums x max(85%, Original Pricing Loss Ratio)

	-		Accum Value of Past Initial Prm x 71.1% =	1,835,525,620
Minimum (Accum Value of Past Incurred Claims,			Present Value of Future Initial Prm x 71.1% =	82,409,285
Accum Value of Adjusted Expected Incurred Claims) =	2,272,142,040		Accum Value of Prior Increases x 85.0% =	285,359,745
Present Value of Future Incurred Claims =	2,074,023,721		Present Value of Future Increases x 85.0% =	217,982,808
Total =	4,346,165,761	>=	Total =	2,421,277,458

Total Incurred Claims exceed Total Initial Premiums x max(60%, Original Pricing Loss Ratio) + Increased Premiums x max(80%, Original Pricing Loss Ratio)

	-		Accum Value of Past Initial Prm x 71.1% =	1,835,525,620
Minimum (Accum Value of Past Incurred Claims,			Present Value of Future Initial Prm x 71.1% =	82,409,285
Accum Value of Adjusted Expected Incurred Claims) =	2,272,142,040		Accum Value of Prior Increases x 80.0% =	268,573,878
Present Value of Future Incurred Claims =	2,074,023,721		Present Value of Future Increases x 80.0% =	205,160,290
Total =	4,346,165,761	>=	Total =	2,391,669,073

4. Proposed Effective Date

These rates will be effective on the next policy anniversary date, following at least a 90 day policyholder notification period. The assumed effective date used to calculate the rate increase is 07/01/2024.

5. History of previous rate revisions

An average 15% rate increase on these policy forms was accepted by your state on November 10, 2009

An average 15% rate increase on these policy forms was accepted by your state on January 15, 2013.

An average 15% rate increase on these policy forms was accepted by your state on July 16, 2015.

A 15% rate increase per year over two years was accepted by your state on April 01, 2020 for policies with inflation.

6. Reduced Benefit Options (RBOs)

Although this is a closed block of business, we are filing the following option which will provide policyholders an alternative to the rate increase:

If the full or substantial portion of the rate increase request is approved and per the state's agreement, we will file the following additional options which would provide policyholders alternatives to the rate increase:

- ***Inflation Landing Spots***
  Future inflation options (also referred to as "landing spots") allow policyholders that have Compound or Simple inflation coverage the option to offset the rate increase. Under these options, the policyholders get to keep their current accumulated Daily benefit and their current remaining Lifetime Maximum Benefit, but the future indexation rate will be reduced to a level which is actuarially equivalent to the requested rate increase in aggregate. These options are not available to limited pay policies or policyholders who have elected three prior inflation reductions.

- ***Shared Cost Option***
  Shared Cost option is an actuarially equivalent option that allows policyholders the option to offset the rate increase. The Shared Cost option would:

  - Reduce the policyholder's current policy benefit amounts by their Shared Cost percentage. The daily/monthly benefit and the policy limit will be reduced by the Shared Cost percentage
  - Apply a percentage factor to any future claim payments equal to the Shared Cost percentage. John Hancock will pay our portion (1 minus the Shared Cost percent) of any covered services, but will not pay more than the new reduced daily/monthly benefit amount and the policyholder will be responsible for the remainder.

  Shared Cost Percentages are calculated using seriatim, nationwide data for each benefit period, inflation type and issue age band combination. All Shared Cost percentages are determined to be actuarially equivalent to the requested rate increases by combination of 5-year issue age band, benefit period and inflation type. The Shared Cost option is not available to limited pay policies or policyholders who have elected two prior Shared Cost options.

- ***Voluntary Enhanced Paid-Up Policy Option***
  For those who choose to stop paying premiums, this option will be a paid-up policy with a policy limit equal to the lesser of the current policy limit and 150% of premiums paid less any benefits received.

The premium rate tables reflecting these options will be filed upon request following a full or substantial approval.

7. Average Annual Premium

The table below summarizes the number of policies inforce that could be affected by the rate increase in your state and their annualized premiums, as well as the average annual premium per policy before and after the requested increase.

Counts and premiums are based on policies inforce as of 12/31/2023. Premium-paying policies as well as policies on claim are included, since although the premium for policies on claim is currently waived, they could be subject to the rate increase upon recovery. Paid-up policies and policies which have exercised the nonforfeiture benefit option are excluded.

Form	Number of Policies	2023 Annualized Premium*	2023 Average Annual Premium Before the rate increase*	2023 Average Annual Premium After the rate increase*
6062-MD	16	34,792	2,170	4,364
6063-MD	306	775,745	2,540	5,108

*Premiums reflect the rate increases approved in prior filing(s), including approvals where implementation is not yet complete

8. State and Nationwide Distribution of Business as of December 31, 2023

The state-specific and nationwide distribution of business for policyholders impacted by the rate increase is shown below by inflation type, benefit period, and issue age. The breakdown of business by Premium Payment Option is also included to show the number of policyholders no longer paying premiums due to nonforfeiture election or paid-up status.

Inflation Type

State	GPO	Simple	Compound	Total
NW	11%	31%	59%	100%
MD	7%	22%	71%	100%
NW	2,334	6,786	12,893	22,013
MD	21	72	229	322

Benefit Period

State	2 yr	3 yr	4 yr	5 yr	Lifetime	Total
NW	5%	24%	18%	19%	34%	100%
MD	4%	18%	25%	24%	28%	100%
NW	1,149	5,200	4,043	4,197	7,424	22,013
MD	14	59	81	77	91	322

Issue Age

State	< 40	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	Total
NW	1%	1%	5%	17%	33%	28%	13%	3%	0%	0%	100%
MD	2%	2%	5%	13%	39%	26%	11%	2%	0%	0%	100%
NW	111	282	1,125	3,634	7,179	6,216	2,804	628	32	2	22,013
MD	5	6	17	43	126	84	34	6	1	0	322

Premium Payment Option

State	Lifetime Pay	On Claim	NFO*	Survivorship Waiver of Premium*	Total
NW	75%	9%	5%	11%	100%
MD	85%	6%	3%	6%	100%
NW	19,752	2,261	1,424	3,007	26,444
MD	301	21	10	22	354

*Policies not included in distributions by count shown above as they are not impacted by the rate increase.

9. Benefit Description(s)

A brief policy description for each of the policy forms:

<u>6062-MD</u>
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 or covered services received in a community setting.

Provides reimbursement of 100% of covered long-term care expenses incurred after an elected elimination period is met, up to the maximum daily amount. For care received in an assisted living facility, the maximum daily amount is 80% of the nursing home maximum daily amount. For care received in a community setting, the maximum daily amount is 50% or 80% of the nursing home maximum daily amount, as elected at issue.

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. For the non-tax-qualified form 6072, the benefit trigger includes personal assistance due to illness or injury for facility care.

Premiums are waived after the insured has met the elimination period and is receiving nursing home or assisted living facility benefits and will continue to be waived until the insured stops receiving such benefits. Premiums are permanently waived after 120 consecutive days in a nursing facility.

<u>6063-MD</u>
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 or covered services received in a community setting.

Provides reimbursement of 100% of covered long-term care expenses incurred after an elected elimination period is met, up to the maximum daily amount. For care received in a community setting, the maximum daily amount is 80% or 100% of the nursing home maximum daily amount, as elected at issue. These forms also include restoration of benefits, and a survivorship benefit.

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. For the non-tax-qualified form 6073, the benefit trigger includes personal assistance due to illness or injury for facility care.

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. Premiums are permanently waived after 120 consecutive days in a nursing facility.

All forms include riders offering the insured an option to purchase Automatic Inflation Coverage of 5% on a Simple Inflation or Compounded Inflation basis.

10. Renewability

All policy forms are guaranteed renewable.

11. 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.

12. Trend Assumptions

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

13. Marketing Method

This product was typically marketed through general agencies, brokers, and wholesale arrangements.

14. 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.

15. Premium Classes

The base policy premium rates vary by issue age, benefit period, inflation option, home health care maximum benefit percentage, and underwriting class, as in the initial rate filing.

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

16. Premium Modalization Rules

Frequency	Multiple of Annual Premium
Semiannual	0.51
Quarterly	0.26
Monthly	0.088

17. Issue Age Range

The issue age range is 18-84 for all policy forms.

18. Area Factors

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

19. Reserves

Active Life Reserves have not been used in this rate increase demonstration. Minimum Statutory Claim reserves as of 12/31/2023 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 12/31/2023 have also been allocated to the calendar year of incurral and included in historic incurred claims.

20. Ensuring No Cross-Subsidization Between States

We have ensured no state's rate increase approvals will subsidize other states' rate increases. Rate increases will vary by state, but only to reflect the timing and amount of prior rate increases approved by that state. This is accomplished by first backing-out all prior approved rate increases from our nationwide premium data. We then re-introduce actual prior rate increases with the amount and timing based on your state's prior approvals (as detailed in **History of Previous Rate Revisions** Section). The current proposed rate increases are then determined based on the amounts needed in order to achieve our target lifetime loss ratios certified to in our prior filing.

Although some states may have capped our previous inforce rate increase filings, in each case this was done with the understanding that the full amount of the proposed rate increases were justified, and that John Hancock would be refiling for the remainder at a later date. In instances where the remainder remains unapproved, it has been included in the current filings.

21. Past Losses Testing

Preventing companies from recouping past losses was the subject of a discussion by the NAIC in 2013. The accepted methodology which was incorporated into the 2014 Long Term Care Model Regulation defines past losses as actual past claims less expected past claims when determining loss ratio compliance. 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 at the beginning of the calendar year."

We apply this methodology in demonstrating that we are not recouping past losses.

The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing durational loss ratio to the actual earned premium in a given calendar year. Later, in years in which and after which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed.

The accumulated value of the Adjusted Expected Incurred Claims is compared to the accumulated value of Actual Incurred Claims. The lesser of the Adjusted Expected Incurred Claims or Actual Incurred Claims is used for past claims when ensuring that the resulting overall increase in rates satisfies the rate stability rule ensuring a loss ratio no less than 85% (or the original pricing loss ratio if greater) on the rate increase portion, while applying 58% (or the original pricing loss ratio if greater) on the original rate schedule. This is demonstrated at the bottom of **Exhibit 1**. The derivation of Adjusted Expected Incurred Claims and comparison to Actual Incurred Claims can be seen in **Addendum #2 – Demonstration of not Recouping Past Losses**.

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.

The requested premium rate schedule is based on assumptions developed from our 2022 experience study. Due to the capped rate increase, if the requested premium rate schedule increase is implemented and the underlying assumptions are realized, additional rate increases will be necessary to achieve the full actuarially justified onetime request based on the Lifetime Loss Ratio. We have recently completed 2025 experience studies and any impacts from those results would be addressed in a future filing.

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.

P.J. Beltramini, FSA, MAAA
VP, Long Term Care Inforce Management
John Hancock Life Insurance Company (U.S.A.)

Addendum #1 - Assumptions and Analysis Performed

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 unfavorable trends since the study that prompted our 2019 rate increase filings.

[REDACTED]

A. Current & Prior Assumptions

Morbidity

[REDACTED]

Incidence

[REDACTED]

Incidence (Count)

Incidence			
Issue Age	A/E Before Assumption Update	A/E After Assumption Update	Claim Count
0-54	89%	87%	109
55-59	108%	99%	506
60-64	107%	101%	1,288
65+	89%	101%	2,840
Total	**95%**	**101%**	**4,743**

Claim Terminations

[REDACTED]

Terminations (Count)				
Benefit Period	Months 1-5		Months 6+	
	A/E Before Assumption Update	A/E After Assumption Update	A/E Before Assumption Update	A/E After Assumption Update
Total	**99%**	**98%**	**105%**	**99%**

Utilization

[REDACTED]

Utilization (Amount)		
Inflation Type	**A/E Before Assumption Update**	**A/E After Assumption Update**
None/GPO	103%	99%
Simple	99%	100%
Compound	96%	100%
Total	**98%**	**100%**

Voluntary Lapses

[REDACTED]

Actual to Expected ratios by amount for the combined John Hancock individual, Time, and Union Security experience, summarized by inflation and duration groups before and after the assumption update, are shown below.

Lapse						
	No Inflation		**With Inflation**		**Total**	
Duration	**A/E Before Assumption Update**	**A/E After Assumption Update**	**A/E Before Assumption Update**	**A/E After Assumption Update**	**A/E Before Assumption Update**	**A/E After Assumption Update**
1-5	120%	72%	91%	100%	91%	99%
6-10	104%	87%	105%	107%	105%	104%
11-15	88%	95%	96%	100%	95%	99%
16-20	113%	93%	114%	103%	114%	101%
21-25	109%	105%	104%	103%	106%	104%
26+	103%	96%	80%	87%	96%	94%
Total	**103%**	**95%**	**102%**	**103%**	**102%**	**101%**

The changes to the expected lapse assumption improved the fit across cohorts and resulted in a total A/E of 101%.

Mortality

[REDACTED]

The below table shows the healthy life A/E ratios by amount before and after the assumption update for the combined John Hancock individual retail, Time and Union Security experience.

Mortality		
Duration	**A/E Before Assumption Update**	**A/E After Assumption Update**
1-5	100%	105%
6-10	99%	99%
11-15	96%	99%
16-20	94%	102%
21-25	94%	99%
26+	74%	81%
Total	**94%**	**100%**

Expenses

[REDACTED]

B. Original Pricing Assumptions

[REDACTED]

Addendum #2 – Demonstration on not Recouping Past Losses
Fortis 6000s (Including 4062-NY & 4063-NY)

	Calendar Year	Original Incurred Loss Ratio	Historic Data Earned Premium	**Adjusted Expected Incurred Claims**		Historic Data Incurred Claims
Original Pricing	1988	0%	-	**-**		-
	1989	0%	-	**-**		-
	1990	0%	-	**-**		-
	1991	0%	-	**-**		-
	1992	0%	-	**-**		-
	1993	0%	-	**-**		-
	1994	0%	-	**-**		-
	1995	0%	-	**-**		-
	1996	0%	-	**-**		-
	1997	0%	-	**-**		-
	1998	10%	5,035,849	**479,103**		-
	1999	9%	28,876,824	**2,698,057**		198,180
	2000	10%	54,704,681	**5,609,438**		392,500
	2001	12%	71,650,685	**8,709,679**		3,528,918
	2002	16%	75,016,003	**11,716,563**		5,587,214
	2003	20%	74,716,687	**15,227,777**		10,541,202
	2004	26%	73,947,942	**18,995,861**		10,603,446
	2005	31%	73,576,951	**22,888,592**		15,141,704
	2006	37%	72,939,478	**26,648,441**		19,362,016
	2007	42%	72,335,127	**30,406,636**		26,577,009
2008 Assumptions*	2008			**27,060,654**		37,406,459
	2009			**30,495,302**		44,221,988
2010 Assumptions	2010			**41,481,044**		51,621,701
	2011			**45,138,167**		60,498,932
	2012			**49,078,128**		62,420,980
2013 Assumptions	2013			**70,453,120**		73,282,963
	2014			**80,012,334**		70,446,822
	2015			**85,326,222**		92,958,369
	2016			**93,355,685**		100,672,215
	2017			**102,479,704**		111,948,044
2016 Assumptions	2018			**120,848,189**		122,176,102
	2019			**127,837,796**		119,794,163
2019 Assumptions	2020			**148,452,150**		130,202,597
	2021			**155,682,024**		146,793,967
	2022			**163,678,060**		158,336,086
	2023			**163,678,060**		167,046,976
Values as of 12/31/2023 (discounted at maximum statutory valuation rates)						
Past :				**2,302,040,605**	>	2,272,142,040

Minimum (Accum Value of Past Incurred Claims,
Accum Value of Adjusted Expected Incurred Claims) = 2,272,142,040

The lesser of actual and expected past claims, $2,272,142,040, is used in demonstrating compliance with the minimum loss ratio in Exhibit 1

* 2008 and 2010 Rate Filings combined data for the 4060s and 6060s Policy Series.

As it is difficult to separate data in older databases, we have approximated the 4060s and 6060s expected premiums and expected claims using 2013 Rate Filing ratios applied to the combined 4060s and 6060s premiums and claims