John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – 4060 Policy Series
July 20, 2026

Product Name	Form Number	Issue Date Range
Comprehensive TQ	4062-MD	Jan 1999 - Nov 1999
Comprehensive Enhanced TQ	4063-MD	Jan 1999 - Dec 1999
Comprehensive Enhanced NTQ	4073-MD	Mar 1999 - Sep 1999

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.

This business was originally issued by Time Insurance Company, but is now part of John Hancock Life Insurance Company (U.S.A.). Per the Certificate of Assumption effective on July 1, 2022, John Hancock Life Insurance Company (U.S.A.) is substituted for Time Insurance Company in all matters and documents relating to claims incurred on and after the Effective Date of Assumption, including the rights, liabilities and obligations originally held by Time Insurance Company under the Policy. John Hancock Life Insurance Company (U.S.A.) will pay all Policy benefits for claims incurred in strict accordance with the terms of the Policy.

2. Requested Rate Increase

On this block we are targeting a 100% 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 140.4% to 135.1%. 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 the Appendices 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 135.1%, 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 66.6%. 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 4056-4073 (Excluding 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
	1996	103	787	13%	-	4,925	0%	-	4,925	0%	-	4,925	0%
	1997	472,124	4,140,166	11%	-	9,337,693	0%	-	9,337,693	0%	-	9,337,693	0%
	1998	2,789,979	25,150,099	11%	1,150,681	30,375,479	4%	1,150,681	30,375,479	4%	1,150,681	30,375,479	4%
	1999	4,631,665	33,996,441	14%	1,019,189	36,054,593	3%	1,019,189	36,054,593	3%	1,019,189	36,054,593	3%
	2000	5,970,950	32,862,456	18%	3,514,476	35,903,761	10%	3,514,476	35,903,761	10%	3,514,476	35,903,761	10%
	2001	7,269,382	30,559,949	24%	5,341,720	35,248,604	15%	5,341,720	35,248,604	15%	5,341,720	35,248,604	15%
	2002	8,557,764	28,554,257	30%	7,453,334	34,904,952	21%	7,453,334	34,904,952	21%	7,453,334	34,904,952	21%
	2003	9,549,258	26,762,103	36%	10,370,852	34,375,384	30%	10,370,852	34,375,384	30%	10,370,852	34,375,384	30%
	2004	10,340,920	25,120,433	41%	11,828,957	33,899,299	35%	11,828,957	33,899,299	35%	11,828,957	33,899,299	35%
	2005	11,009,486	23,560,845	47%	16,495,030	33,307,791	50%	16,495,030	33,307,791	50%	16,495,030	33,307,791	50%
Historical	2006	11,625,367	22,053,542	53%	17,595,610	32,816,051	54%	17,595,610	32,816,051	54%	17,595,610	32,816,051	54%
Experience	2007	12,233,345	20,598,492	59%	23,086,182	32,027,174	72%	23,086,182	32,027,174	72%	23,086,182	32,027,174	72%
	2008	12,826,239	19,189,360	67%	26,009,035	31,318,407	83%	26,009,035	31,318,407	83%	26,009,035	31,318,407	83%
	2009	13,391,022	17,822,475	75%	33,681,466	30,053,964	112%	33,681,466	30,053,964	112%	33,681,466	30,053,964	112%
	2010	13,931,655	16,498,154	84%	38,763,155	31,244,213	124%	38,763,155	31,244,213	124%	38,763,155	31,244,213	124%
	2011	14,446,511	15,217,318	95%	37,603,349	30,775,371	122%	37,603,349	30,775,371	122%	37,603,349	30,775,371	122%
	2012	14,932,156	13,982,045	107%	47,017,080	26,842,118	175%	47,017,080	26,842,118	175%	47,017,080	26,842,118	175%
	2013	15,368,033	12,797,388	120%	54,680,886	25,407,870	215%	54,680,886	25,407,870	215%	54,680,886	25,407,870	215%
	2014	15,737,171	11,671,321	135%	56,671,782	24,975,779	227%	56,671,782	24,975,779	227%	56,671,782	24,975,779	227%
	2015	16,037,080	10,599,880	151%	64,921,958	25,749,163	252%	64,921,958	25,749,163	252%	64,921,958	25,749,163	252%
	2016	16,267,146	9,580,328	170%	65,393,638	22,835,858	286%	65,393,638	22,835,858	286%	65,393,638	22,835,858	286%
	2017	16,422,323	8,614,120	191%	71,984,695	20,209,913	356%	71,984,695	20,209,913	356%	71,984,695	20,209,913	356%
	2018	16,485,500	7,703,063	214%	64,921,710	19,828,063	327%	64,921,710	19,828,063	327%	64,921,710	19,828,063	327%
	2019	16,443,325	6,849,835	240%	75,255,781	19,720,346	382%	75,255,781	19,720,346	382%	75,255,781	19,720,346	382%
	2020	16,305,161	6,056,381	269%	55,876,902	17,734,272	315%	55,876,902	17,734,272	315%	55,876,902	17,734,272	315%
	2021	16,074,039	5,322,103	302%	81,413,040	15,567,547	523%	81,413,040	15,567,547	523%	81,413,040	15,567,547	523%
	2022	15,747,752	4,648,107	339%	70,909,036	13,460,262	527%	70,909,036	13,460,262	527%	70,909,036	13,460,262	527%
	2023	15,322,799	4,034,182	380%	74,069,894	11,835,905	626%	74,069,894	11,835,905	626%	74,069,894	11,835,905	626%
	2024	14,794,783	3,478,536	425%	68,919,898	11,156,987	618%	68,385,769	59,769,424	114%	68,385,769	11,555,516	592%
	2025	14,181,834	2,980,674	476%	68,674,133	9,984,917	688%	64,948,561	106,275,165	61%	64,948,561	11,438,874	568%
	2026	13,498,709	2,537,409	532%	66,993,250	8,870,498	755%	62,839,668	96,461,545	65%	62,839,668	11,667,226	539%
	2027	12,743,316	2,144,735	594%	64,663,787	7,827,206	826%	60,654,632	85,116,339	71%	60,654,632	11,839,250	512%
	2028	11,925,518	1,799,805	663%	62,391,008	6,854,303	910%	58,522,766	74,536,590	79%	58,522,766	11,922,810	491%
	2029	11,055,634	1,500,248	737%	59,479,738	5,958,788	998%	55,791,994	64,798,378	86%	55,791,994	11,205,506	498%
	2030	10,167,078	1,242,649	818%	56,140,805	5,147,743	1091%	52,660,075	55,978,732	94%	52,660,075	9,712,005	542%
	2031	9,272,281	1,021,768	907%	52,500,703	4,420,251	1188%	49,245,660	48,067,676	102%	49,245,660	8,339,480	591%
Projected	2032	8,368,285	833,345	1004%	48,675,928	3,772,703	1290%	45,658,021	41,025,968	111%	45,658,021	7,117,782	641%
Future	2033	7,471,967	674,356	1108%	44,749,898	3,200,258	1398%	41,975,405	34,800,954	121%	41,975,405	6,037,776	695%
Experience	2034	6,604,422	542,799	1217%	40,767,659	2,697,536	1511%	38,240,064	29,334,140	130%	38,240,064	5,089,314	751%
	2035	5,802,216	435,635	1332%	36,808,040	2,259,331	1629%	34,525,941	24,568,917	141%	34,525,941	4,262,573	810%
	2036	5,064,740	348,405	1454%	32,937,912	1,880,129	1752%	30,895,761	20,445,312	151%	30,895,761	3,547,150	871%
	2037	4,383,073	277,611	1579%	29,204,341	1,554,373	1879%	27,393,672	16,902,904	162%	27,393,672	2,932,562	934%
	2038	3,726,401	220,541	1690%	25,649,352	1,276,513	2009%	24,059,092	13,881,342	173%	24,059,092	2,408,337	999%
	2039	3,119,419	174,889	1784%	22,300,979	1,041,383	2141%	20,918,319	11,324,436	185%	20,918,319	1,964,728	1065%
	2040	2,584,778	138,453	1867%	19,204,840	843,991	2275%	18,014,140	9,177,913	196%	18,014,140	1,592,318	1131%
	2041	2,124,202	109,121	1947%	16,383,130	679,631	2411%	15,367,376	7,390,595	208%	15,367,376	1,282,228	1198%
	2042	1,715,192	85,398	2008%	13,851,885	543,902	2547%	12,993,068	5,914,620	220%	12,993,068	1,026,154	1266%
	2043	1,364,373	66,571	2050%	11,602,474	432,670	2682%	10,883,121	4,705,039	231%	10,883,121	816,299	1333%
	2044	1,078,023	51,919	2076%	9,635,302	342,196	2816%	9,037,913	3,721,189	243%	9,037,913	645,606	1400%
	2045	849,691	40,593	2093%	7,943,655	269,096	2952%	7,451,148	2,926,263	255%	7,451,148	507,691	1468%
	2046	666,208	31,648	2105%	6,519,385	210,417	3098%	6,115,184	2,288,168	267%	6,115,184	396,985	1540%
	2047	511,858	24,413	2097%	5,335,703	163,592	3262%	5,004,890	1,778,968	281%	5,004,890	308,641	1622%
	2048	379,314	18,804	2017%	4,354,596	126,404	3445%	4,084,611	1,374,568	297%	4,084,611	238,480	1713%

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)

Past :	545,572,292	972,899,259	56.1%	1,491,153,787	1,453,753,563	102.6%	1,491,153,787	1,453,753,563	102.6%	1,491,153,787	1,453,753,563	102.6%
Future :	113,451,995	17,000,195	667.4%	641,016,080	64,849,716	988.5%	605,428,818	642,829,043	94.2%	605,428,818	98,228,808	616.3%
Lifetime :	659,024,287	989,899,455	66.6%	2,132,169,867	1,518,603,279	140.4%	2,096,582,606	2,096,582,606	100.0%	2,096,582,606	1,551,982,370	135.1%

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 66.6% =	888,186,576
Minimum (Accum Value of Past Incurred Claims,			Present Value of Future Initial Prm x 66.6% =	20,985,439
Accum Value of Adjusted Expected Incurred Claims) =	1,279,562,390		Accum Value of Prior Increases x 85.0% =	101,691,204
Present Value of Future Incurred Claims =	605,428,818		Present Value of Future Increases x 85.0% =	56,701,159
Total =	1,884,991,209	>=	Total =	1,067,564,378

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 66.6% =	888,186,576
Minimum (Accum Value of Past Incurred Claims,			Present Value of Future Initial Prm x 66.6% =	20,985,439
Accum Value of Adjusted Expected Incurred Claims) =	1,279,562,390		Accum Value of Prior Increases x 80.0% =	95,709,369
Present Value of Future Incurred Claims =	605,428,818		Present Value of Future Increases x 80.0% =	53,365,797
Total =	1,884,991,209	>=	Total =	1,058,247,180

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 16, 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*
4062-MD	5	7,711	1,540	3,097
4063-MD	76	165,367	2,180	4,384
4073-MD	4	8,654	2,160	4,344

*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	17%	36%	46%	100%
MD	6%	47%	47%	100%
NW	1,324	2,759	3,531	7,614
MD	5	40	40	85

Benefit Period

State	2 yr	3 yr	4 yr	5 yr	Lifetime	Total
NW	6%	20%	18%	19%	38%	100%
MD	5%	26%	15%	18%	36%	100%
NW	420	1,531	1,378	1,413	2,872	7,614
MD	4	22	13	15	31	85

Issue Age

State	< 40	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	Total
NW	0%	1%	5%	15%	27%	33%	15%	3%	0%	100%
MD	0%	1%	8%	16%	44%	25%	6%	0%	0%	100%
NW	33	112	377	1,158	2,062	2,477	1,168	217	10	7,614
MD	0	1	7	14	37	21	5	0	0	85

Premium Payment Option

State	Lifetime Pay	On Claim	NFO*	Survivorship Waiver of Premium*	Total
NW	68%	13%	5%	14%	100%
MD	89%	2%	4%	4%	100%
NW	6,417	1,197	493	1,369	9,476
MD	83	2	4	4	93

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

9. Benefit Description(s)

<u>4062-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 4072, 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>4063-MD, 4073-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 4073, 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, elimination period, 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. Current studies show unfavorable trends.

[REDACTED]

A. Current & Prior Assumptions

Morbidity

[REDACTED]

Incidence

[REDACTED]

After updating assumptions to reflect experience, the overall A/E ratio for the Time incidence is 99%.

Incidence (Count)

Incidence		
Duration	**A/E Before Assumption Update**	**A/E After Assumption Update**
10-19	105%	98%
20-24	95%	100%
25+	89%	94%
Total	**97%**	**99%**

Claim Terminations

[REDACTED]

The termination experience for Time was overall favorable, however, it was not uniform by month on claim. Overall after updating assumptions to reflect termination experience, the A/E for the total Time block is 100% for the first 5 months on claim and 101% overall.

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**
<10 years	89%	98%	113%	101%
10+ years	87%	102%	114%	100%
Total	**88%**	**100%**	**114%**	**101%**

Utilization

[REDACTED]

Following the assumption update based on experience, the total A/E for Time block is 99%.

Utilization (Amount)		
Inflation Type	**A/E Before Assumption Update**	**A/E After Assumption Update**
None/GPO	98%	98%
Simple	102%	99%
Compound	101%	100%
Total	**101%**	**99%**

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**	
Duration	**A/E Before Assumption Update**	**A/E After Assumption Update**	**A/E Before Assumption Update**	**A/E After Assumption Update**
1-5	95%	72%	69%	100%
6-10	83%	87%	95%	107%
11-15	87%	95%	79%	100%
16-20	120%	93%	112%	103%
21-25	110%	105%	103%	103%
26+	104%	96%	80%	87%
Total	**94%**	**95%**	**86%**	**103%**

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

<u>Mortality</u>

[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	95%	105%
6-10	96%	99%
11-15	95%	99%
16-20	97%	102%
21-25	89%	99%
26+	73%	81%
Total	**94%**	**100%**

<u>Expenses</u>

[REDACTED]

B. <u>Original Pricing Assumptions</u>

[REDACTED]

Addendum #2 – Demonstration on not Recouping Past Losses
Fortis 4056 - 4073 (Excluding 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%	4,925	**-**		-
	1997	0%	9,337,693	**-**		-
	1998	10%	30,375,479	**2,889,877**		1,150,681
	1999	9%	36,054,593	**3,368,700**		1,019,189
	2000	10%	35,903,761	**3,681,585**		3,514,476
	2001	12%	35,248,604	**4,284,733**		5,341,720
	2002	16%	34,904,952	**5,451,717**		7,453,334
	2003	20%	34,375,384	**7,005,941**		10,370,852
	2004	26%	33,899,299	**8,708,104**		11,828,957
	2005	31%	33,307,791	**10,361,512**		16,495,030
	2006	37%	32,816,051	**11,989,346**		17,595,610
	2007	42%	32,027,174	**13,462,873**		23,086,182
2008 Assumptions*	2008			**16,095,337**		26,009,035
	2009			**18,355,343**		33,681,466
2010 Assumptions	2010			**24,910,808**		38,763,155
	2011			**27,206,284**		37,603,349
	2012			**29,624,234**		47,017,080
2013 Assumptions	2013			**47,572,214**		54,680,886
	2014			**51,411,886**		56,671,782
	2015			**52,163,009**		64,921,958
	2016			**54,571,260**		65,393,638
	2017			**57,565,197**		71,984,695
2016 Assumptions	2018			**67,976,184**		64,921,710
	2019			**66,797,173**		75,255,781
2019 Assumptions	2020			**80,367,140**		55,876,902
	2021			**80,175,720**		81,413,040
	2022			**80,964,499**		70,909,036
	2023			**80,301,135**		74,069,894
Values as of 12/31/2023 (discounted at maximum statutory valuation rates)						
Past :				**1,279,562,390**	<	1,491,153,787

Minimum (Accum Value of Past Incurred Claims,
Accum Value of Adjusted Expected Incurred Claims) = 1,279,562,390

The lesser of actual and expected past claims, $1,279,562,390, 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