

April 16, 2018

Re: Group long-term policy G.LTC1697 (including GCLTCAARP-04-OP in Maryland)
 Issued by Metropolitan Life Insurance Company (MetLife)

Attached is the filing for the captioned forms. This letter provides an overview of the filing and notes on some of the content. After a careful review of earlier filings, we have endeavored to reflect in this filing additional content based on all the questions submitted by your Department. Hopefully, this will make your review easier and more effective.

Filing Overview

In addition to this Overview, this filing consists of the Actuarial Memorandum and supporting Attachments based on earlier reviews. These documents are outlined and summarized here for your convenience.

Title	Description
Actuarial Memorandum Exhibit I	Lifetime Loss Ratio (“LLR”) <ul style="list-style-type: none"> • Without/with proposed rate increase of 7.06% • <i>Nationwide</i> earned premium and incurred claims experience • Weighted average statutory discount rate 4.20% LLR without proposed increase – 112.4% With proposed increase – 109.2%
Exhibit II	Demonstration of rate action meeting Rate Stability requirements
Review of Prior Correspondence Attachment 1	Lifetime Loss Ratio (“LLR”) <ul style="list-style-type: none"> • Without/with proposed rate increase of 7.06% • <i>Maryland</i> earned premium and incurred claims experience • Weighted average statutory discount rate 4.20% LLR without proposed increase – 108.2% With proposed increase – 104.9%
Attachment 2	Comparison of Original Pricing and Current Best Estimate Assumptions
Attachment 3	Actual-to-Expected results for Lapse, Mortality, Incidence and Claim Termination assumptions
Attachment 4	Actual-to-Expected Loss Ratios by Duration <i>Nationwide experience</i> LLR without rate increase – 112.2%; A/E – 1.50

Attachment 5	Actual-to-Expected Loss Ratios by Calendar Year <i>Nationwide experience</i> LLR without rate increase – 112.4%; A/E – 1.50
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Additional Notes

MetLife requests the rate action based on deviations from anticipated experience outlined in the Actuarial Memorandum and the supporting attachments. Lifetime Loss Ratios exceed all minimum requirements in Maryland as well as the application of rate stability standards even at the full requested rate action. In addition, though Maryland-only experience is not necessarily credible, it is provided in this filing for your information only.

We note that, despite the rate action requested, the experience of the block does not fully return to pricing levels. In general, the rate action addresses primarily future experience and does not seek to recover historical losses. We will continue, of course, to monitor and adjust experience assumptions and reserve the right to update those in the future along with requesting any resulting changes in premium rates.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,



William P. Bigelow, FSA, MAAA
Vice President and Actuary, Metropolitan Life Insurance Company

METROPOLITAN LIFE INSURANCE COMPANY

New York, NY

Actuarial Memorandum for AARP Group Policy

April 16, 2018

This actuarial memorandum pertains to long-term care insurance provided under group policy issued to cover eligible members of the American Association of Retired Persons (“AARP”) and their spouses (including domestic partners) who meet the eligibility requirements specified in the policy.

Policy Forms

The premium rate schedule increase for which we are seeking approval will apply to the following certificate forms approved by your Department and that were issued under the group long-term care policy G.LTC1697 (situated in District of Columbia):

- GCLTCAARP-04-OP

1. Purpose of Filing

This actuarial memorandum has been prepared for the purpose of demonstrating that the anticipated loss ratio standard of this product meets the minimum requirements of your state and may not be suitable for other purposes.

2. Description of Benefits

There are two options available: the Comprehensive Monthly Reimbursement Plan and the Facility-only Monthly Reimbursement Plan. Both plans provide benefits for Primary Services equal to the lesser of:

- a. the actual expenses incurred for the receipt of one month’s services
- b. the Monthly Benefit Amount (“MBA”) times a percentage that varies based on the site of care

MBA = Daily Benefit Amount (“DBA”) times the number of days in the month.

Reimbursement Percentages by Site of Care

- I. Nursing Home, Hospice, or Assisted Living Facility – 100%
- II. Home Health Care (for Comprehensive Coverage Option only) – optional 50%, 80% or 100%
- III. Informal Care (for Comprehensive Coverage Option only) – 50% of the selected Home Health Care coverage

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Respite Service

Both plans reimburse the actual incurred expenses for Respite Services provided by a Formal or Informal Caregiver, up to the DBA corresponding to the type of service. Benefits are limited to 30 days per calendar year.

3. Renewability

These policy forms are guaranteed renewable for life.

4. Applicability

This filing is applicable to the group long-term care insurance certificates shown on the first page issued to AARP from July 1, 2005 to January 22, 2007 with a group policy situs within District of Columbia. No in-force premium rate schedule increase has been previously implemented for these forms.

We will only implement a premium rate schedule increase for certificates issued to residents of your state after we have received approval from your Department. We will implement the amount of the increase approved by your Department irrespective of the amount of the increase approved by the District of Columbia (where the long-term care insurance policy issued to AARP was situated). These policy forms are no longer being marketed to AARP members and spouses.

5. Actuarial Assumptions

- a. Expected Claim Costs are the product of attained age frequency rates and continuance curves, adjusted by utilization factors and underwriting selection factors based on actual experience through June 30, 2016.
- b. Voluntary Termination Rates vary by duration as developed from actual experience through June 30, 2016 and are shown in the following table:

Voluntary Termination Rates

Policy Duration	Lapse Rate
1	5.50%
2	3.50%
3	2.50%
4	2.00%
5	1.50%
6	1.25%
7+	1.00%

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In the year of rate increase implementation, it is assumed that an additional 1.1% of policies lapse and there is 0.3% net reduction to premiums and benefits due to benefit downgrades. There is no adverse selection assumed due to the additional lapse rates.

- c. Mortality 88% of Annuity 2000 Basic Table with selection consistent with experience.
- d. Expenses Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

The above assumptions are based on actual inforce experience of MetLife and are deemed reasonable for the group policy form, including certificate forms issued under such group policy. In establishing the assumptions described in this section, the policy design, underwriting, and claims adjudication practices for the above-referenced policy forms were taken into consideration.

The assumptions described above were developed from the actual historical experience on these forms and supplemented, as needed, based on the experience of other forms. The projections contained in this actuarial memorandum are based on the best estimate assumptions, as described above, except the projections include a margin for moderately adverse experience equal to 5% of projected future incurred claims.

6. Marketing Method

These policy forms were issued to provide coverage to eligible AARP members and spouses. The primary method of marketing was direct mail.

7. Underwriting Description

Certain health information was required of applicants at the time of enrollment, including answering questions on the enrollment form regarding medical history, supplemented by contacting health care providers for medical records, as well as telephone and face-to-face interviews as needed.

8. Premiums

Premium rates varied based upon the age of the insured at issue and the particular benefit variations selected. A preferred risk discount was applied to insured persons that qualified based on underwriting criteria. If two or more members of the same household purchased coverage, then a household discount was applied. Additionally, monthly EFT Premium was equal to the monthly premium less \$2 and annual premium was equal to monthly premium times 12 less \$24.

9. Issue Age Range

The issue age is 18 and over.

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10. Area Factors

Area factors are not used for this product.

11. Reserves

Active life reserves have not been used in this rate increase analysis. Claim reserves as of December 31, 2016 have been discounted to the incurral date of each respective claim and included in historical incurred claims. Incurred but not reported reserve balances as of December 31, 2016 have been allocated to a calendar year of incurral and included in historical incurred claims.

12. Trend Assumptions

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

13. Past and Future Policy Experience

Nationwide experience and specific experience for those certificates issued in Maryland are shown in Exhibit I and Attachment 1, respectively.

Historical experience is shown by claim incurral year. Claim payments and reserves were discounted to the mid-point of the year of incurral at the weighted average maximum valuation interest rate for contract reserves which is 4.20%. Incurred but not reported reserves were allocated based on a historical analysis of claim development pattern.

Annual loss ratios are calculated, with and without interest, as incurred claims divided by earned premiums.

A lifetime loss ratio as of December 31, 2016 is calculated as the sum of accumulated past experience and discounted future experience where accumulation and discounting occur at the weighted average maximum valuation interest rate for contract reserves, which is 4.20%.

14. Projected Earned Premiums and Incurred Claims

Earned premiums for projection years 2017 through 2097 are developed by multiplying each prior period's earned premium (starting with December 31, 2016 actual earned premium) by a persistency factor. For a year in which the rate increase is effective, the earned premium prior to the increase is multiplied by 1 plus the rate increase percent and an effectiveness factor.

Incurred claims for each projection year combine the impact of incidence rates, claim continuance rates and utilization factors by the policy benefits on a seriatim basis.

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Present and accumulated values in the lifetime projections in Exhibit I and II are determined at the average maximum valuation interest rate for contract reserves applicable to LTC business issued in the years in which the applicable business of this filing were issued. The maximum valuation interest rate averages 4.20%.

The assumptions used in Exhibit I and II projections are developed from the company's LTC insurance experience, plus a margin for moderately adverse experience.

Projections in Exhibit II provide a demonstration that 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 58%;
2. 85% of the accumulated value of prior premium rate schedule increases;
3. Present value of future projected initial earned premium times 58%; and
4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

15. History of Previous Inforce Rate Increases

Previously, a total premium rate increase of 15% was authorized by your Department on October 10, 2017 with an implementation date of January 1, 2018.

The experience and projections in Exhibit I have been restated to reflect a rate level similar to that authorized in Maryland on a nationwide basis.

16. Requested Rate Increase

The company is requesting a rate increase of 7.06% for the policy forms listed above. Corresponding rate tables reflecting the 7.06% rate increase are included with this filing. ***Please note that, any authorized premium rate increase will not become effective for any insured until that insured's prior rate increase has been effective for at least one (1) year.*** Please note also that the actual rates implemented may vary slightly from those filed due to implementation rounding algorithms.

17. Analysis Performed

The initial premium schedule was based on pricing assumptions believed to be appropriate, given the information available at the time the initial rate schedule was developed. The original pricing assumptions for claim costs, voluntary termination rates, and mortality were as follows:

- a. Incidence and continuance rates for nursing home care and home health care rates were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982/1984/1989 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care

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Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or administered.

- b. Voluntary termination rates by duration were assumed to be 6.25% in year one, grading down to 1.5% in year fifteen and thereafter.
- c. Mortality was based on 105% of the Annuity 2000 Basic Mortality Table modified using Projection Scale H.

As part of the inforce management of the business, MetLife monitors the performance of the business by completing periodic analyses of lapse rates, mortality rates, claim incidence rates, claim continuance rates and claim utilization rates. The findings from these analyses were used to determine the current experience assumptions on a best estimate basis. A margin for moderately adverse experience equal to 5% of projected future incurred claims was added to the best estimate assumptions. A model of this business was developed for use in the cash flow testing that is part of the company's annual statutory reporting requirements. Using this model, a future projection of these policies under the new moderately adverse assumptions was performed and the projected lifetime loss ratio for these policies was determined. For these policies, the past experience and future projections based on current moderately adverse assumptions combine to a resulting loss ratio that exceeds both original pricing expectations and state minimum requirements.

The experience analysis, management's view of when a change to the original rate schedule may be considered and the seriatim inforce and claim data used in developing the projections in Exhibit I and II have been relied upon by the actuary in the development of this memorandum.

18. Loss Ratio Requirement Compliance Demonstration

Projected experience assuming the increase is implemented is shown in Exhibit I and II. As shown in these exhibits, the expected lifetime loss ratios, with and without the requested rate increase, exceed the minimum loss ratio requirement.

19. Average Annual Premium

The average September 30, 2017 annualized premium for all premium-paying certificate holders before and after the current requested increase are:

Before any increase (previous rate increase not yet effective):	\$1,782
After implementation of previous rate increase (described in Section 15):	\$2,049
After implementation of additional rate increase (requested in this filing):	\$2,194

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20. Proposed Effective Date

The rate increase will apply to certificateholders on the anniversary of their original coverage effective date, following at least a 60-day notification period after the increase is approved.

21. Nationwide Distribution of Business as of September 30, 2017 (based on premium-paying certificates in force count)

By Issue Age:

Issue Age	Percent
<45	0%
45-49	1%
50-54	11%
55-59	25%
60-64	29%
65-69	24%
70-74	8%
75+	1%
Total	100%

By Benefit Period:

Benefit Period	Percent
2 Year	5%
3 Year	28%
4 Year	49%
5 Year	7%
7 Year	1%
Unlimited	9%
Total	100%

By Inflation Option:

Inflation	Percent
Optional	74%
Auto 5% Compound	26%
Total	100%

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By Home Care Percentage:

Home Care %	Percent
0% (FC Only)	16%
50%	55%
80%	6%
100%	22%
Total	100%

By Elimination Period:

Days	Percent
20	2%
30	53%
45	-
60	29%
90	16%
Total	100%

By Gender:

Gender	Percent
Female	60%
Male	40%
Total	100%

22. Number of Certificateholders

As of September 30, 2017, the number of premium-paying certificates inforce and their premiums that will be affected by this increase are:

	Issued Before Rate Stability Regulation Effective Date	Issued On or After Rate Stability Regulation Effective Date
	Number of Insured	Number of Insured
	2017 Annualized Premium	2017 Annualized Premium
Certificates issued in Maryland	-	142
Certificates issued nationwide	3,512	4,896
	-	\$271,989
	\$6,473,314	\$8,508,347

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23. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for preparing health rate filings and to render the actuarial opinion contained herein.

This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of Maryland.

I further certify that:

- the analysis described in Section 17 of this memorandum was used in determining the need for a rate increase;
- the policy design, underwriting and claims adjudication practices have been reviewed and taken into consideration in this rate increase request;
- the actuarial assumptions used are appropriate and the gross premiums bear reasonable relationship to the benefits; and
- the relationship between renewal premium rate schedules and new business premium rate schedules is not applicable because MetLife is no longer issuing new business on these policy forms.



William P. Bigelow, FSA, MAAA
Vice President and Actuary, Metropolitan Life Insurance Company

Exhibit II
Demonstration that Lifetime Incurred Claims with Requested Increase are
Not Less than Lifetime Earned Premium with Prescribed Factors
Group Policy Form: G.LTC.1697

1	Accumulated value of initial earned premium	219,189,410	x	58%	=	127,129,858
2a	Accumulated value of earned premium	219,189,410				
2b	Accumulated value of prior premium rate schedule increases (2a-1)	0	x	85%	=	0
3	Present value of future projected initial earned premium	135,987,954	x	58%	=	78,873,013
4a	Present value of future projected premium	159,755,580				
4b	Present value of future projected premium in excess of the projected initial earned premiums (4a-3)	23,767,626	x	85%	=	20,202,482
5	Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b					226,205,353
6a	Accumulated value of incurred claims without the inclusion of active life reserves					40,317,500
6b	Present value of future projected incurred claims without the inclusion of active life reserves					373,596,845
7	Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b					413,914,345
8	Test: 7 is not less than 5					TRUE

Attachment 2
Metropolitan Life Insurance Company
Group Policy Form: G.LGC1697, Certificate Form: GCLTCAARP-04-OP
Comparison of Original Pricing and Current Best Estimate Assumptions

Original Pricing Assumptions

Discount Rate 5.50%

Voluntary Lapse Rates

Policy Duration	Lapse Rate
1	6.25%
2	3.50%
3-7	3.00%
8	2.50%
9	2.25%
10-12	2.00%
13-14	1.75%
15+	1.50%

Current Best Estimate Assumptions

4.20%

Policy Duration	Lapse Rate
1	5.50%
2	3.50%
3	2.50%
4	2.00%
5	1.50%
6	1.25%
7+	1.00%

Active Life Mortality Rates Mortality was based on 105% of the Annuity 2000 Basic mortality table with Projection Scale H.

88% Annuity 2000 Basic Table with Mortality Selection Factors of:

Policy Duration	Mortality Selection
1	25.00%
2	50.00%
3	55.00%
4	65.00%
5	70.00%
6	75.00%
7	80.00%
8	85.00%
9	90.00%
10	95.00%
11+	100.00%

Morbidity:

Incidence

Incidence rates for nursing home care and home health care were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982-84-89 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or administered.

Sample Ultimate Smoothed Incidence Rates (before gross-up to zero-day elimination)

Attained Age	Facility Care		Home Care	
	Male	Female	Male	Female
81	1.62%	1.89%	1.49%	1.41%
82	1.93%	2.31%	1.79%	1.57%
83	2.25%	2.75%	1.92%	1.76%
84	2.44%	3.31%	2.24%	1.95%
85	2.55%	3.85%	2.43%	2.18%

Continuance

Continuance rates for nursing home care and home health care were based on studies from the 1985 and 1997 National Nursing Home Survey and 1982-84-89 National Long Term Care Survey, respectively, supplemented with the 1984-1999 Long Term Care Experience Committee Inter-Company Study and with modifications to incorporate experience of other long-term care business that MetLife issued or

Termination curves were constructed separately for deaths and recoveries, gender and care path. Coefficients to an exponential-shaped curve were based on experience adjusted to minimize differences between actual and expected terminations in total as well as at periodic duration points along the curves. Death and recovery termination rates were recombined into a single termination table for modelling and valuation uses.

Utilization

Home care prevalence rates were based on 1982-1984 National Long Term Care Surveys with modifications. Note that the actual utilization assumption at original pricing is not available.

Home Care	Facility Care
72%	87%

Attachment 4
Metropolitan Life Insurance Company
Actual to Expected Lapse/Mortality
Attachment 3
Individual Business
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Lapse

Lapse			
Policy Duration	Actual	Expected *	A/E%
1	6,622	6,653	99.54%
2	3,765	4,040	93.19%
3	2,701	2,795	96.63%
4	2,055	2,177	94.39%
5	1,542	1,595	96.67%
6	1,408	1,301	108.24%
7	1,194	1,018	117.26%
8	1,030	996	103.39%
9	898	970	92.62%
10+	3,573	4,395	81.30%

Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Mortality

Mortality			
Policy Duration	Actual	Expected *	A/E%
1	536	541	99.05%
2	924	1,129	81.85%
3	1,110	1,317	84.25%
4	1,316	1,663	79.12%
5	1,532	1,922	79.73%
6	1,694	2,194	77.22%
7	1,859	2,446	75.99%
8	2,052	2,691	76.24%
9	2,105	2,872	73.29%
10	2,268	3,000	75.61%
11	2,270	3,049	74.45%
12	2,125	2,668	79.64%
13	1,883	2,201	85.57%
14+	4,505	4,701	95.82%

* The expecteds are based on current best estimate assumptions.

**Attachment 4
Metropolitan Life Insurance Company
Actual to Expected Incidence
Individual Business**

**Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Incidence**

Calendar Year	Female						Male					
	Facility Care			Home Care			Facility Care			Home Care		
	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%	Actual Claims ¹	Expected Claims ²	A/E%
2004	70	71	99%	64	58	110%	43	42	103%	48	38	127%
2005	111	100	111%	81	79	103%	57	59	96%	49	52	94%
2006	140	138	102%	125	104	120%	99	81	122%	83	70	119%
2007	185	178	104%	154	128	120%	101	104	97%	89	87	103%
2008	240	222	108%	174	151	115%	120	127	94%	105	103	102%
2009	286	266	107%	180	172	105%	142	148	96%	96	117	82%
2010	302	309	98%	205	190	108%	171	169	101%	122	131	93%
2011	351	352	100%	184	205	90%	215	189	114%	117	140	83%
2012	412	398	104%	220	220	100%	213	208	103%	127	150	85%
2013	430	445	97%	246	233	106%	233	228	102%	169	158	107%
2014	490	482	102%	238	247	96%	229	243	94%	176	167	105%
2015	499	522	96%	257	260	99%	248	263	94%	187	174	107%
Total	3,516	3,483	101%	2,128	2,046	104%	1,871	1,860	101%	1,368	1,385	99%

¹ Based on actual experience through 6/30/2016 including adjustments for incurred but not reported claims.

² The expected claims are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Actual to Expected Claim Terminations
All Business (excl. AARP-Pru)

Attachment 3
Metropolitan Life Insurance Company
Group Policy Form: G.LTC1697
Actual-to-Expected Results - Claim Termination

Claim Duration (Months)	Non AARP-Pru Block						
	Actual Deaths	Expected Deaths ¹	Actual Recoveries	Expected Recoveries ¹	Deaths A/E%	Recoveries A/E%	Total A/E%
1	774	482	59	75	160%	78%	149%
2	703	1,197	156	233	59%	67%	60%
3	746	1,036	218	222	72%	98%	77%
4	834	1,139	294	252	73%	116%	81%
5	831	934	262	206	89%	127%	96%
6	726	816	196	179	89%	110%	93%
7	623	676	174	148	92%	118%	97%
8	561	582	131	122	96%	107%	98%
9	546	510	104	103	107%	101%	106%
10	465	459	114	88	101%	130%	106%
11	443	423	73	76	105%	96%	103%
12	469	397	80	67	118%	119%	118%
13+	11,666	10,750	1,254	1,365	109%	92%	107%
Total	19,387	19,402	3,115	3,137	100%	99%	100%

¹ The expected deaths and recoveries are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Nationwide Experience Projections With No Rate Increase
Actual to Expected Ratios by Duration
Group Policy Form: G.LTC.1697

Duration	Actual / Projected Experience			Expected Pricing Experience			G = C / F Actual to Expected Ratio
	Actual Experience through 12/31/2016			Reproduced based on Original Pricing			
	Projections based on Current Assumptions			Assumptions since inception			
	A	B	C = B / A	D	E	F = E / D	
	Earned Premium	Incurred Claims	Loss Ratio	Earned Premium	Incurred Claims	Loss Ratio	
1	9,161,897	401,775	4.4%	9,161,897	312,872	3.4%	1.28
2	17,360,052	418,831	2.4%	17,360,052	1,399,752	8.1%	0.30
3	16,868,984	919,759	5.5%	16,539,444	1,956,719	11.8%	0.46
4	16,518,968	1,332,452	8.1%	15,822,805	2,513,721	15.9%	0.51
5	16,190,689	2,331,424	14.4%	15,116,964	3,155,181	20.9%	0.69
6	15,916,682	2,667,201	16.8%	14,422,836	4,110,997	28.5%	0.59
7	15,687,903	2,788,959	17.8%	13,739,514	4,632,405	33.7%	0.53
8	15,457,661	3,069,255	19.9%	13,066,102	4,990,800	38.2%	0.52
9	15,238,599	4,510,178	29.6%	12,464,666	5,478,004	43.9%	0.67
10	15,066,738	4,865,863	32.3%	11,896,499	5,912,673	49.7%	0.65
11	14,993,410	6,928,597	46.2%	11,356,958	6,309,932	55.6%	0.83
12	15,686,903	10,218,495	65.1%	10,818,876	6,898,769	63.8%	1.02
13	16,024,053	9,281,733	57.9%	10,282,490	7,388,883	71.9%	0.81
14	15,368,599	10,340,098	67.3%	9,774,048	7,775,187	79.5%	0.85
15	14,685,754	11,702,948	79.7%	9,266,094	8,397,100	90.6%	0.88
16	13,981,673	13,171,647	94.2%	8,782,733	8,919,110	101.6%	0.93
17	13,268,017	14,732,330	111.0%	8,299,525	9,351,337	112.7%	0.99
18	12,543,532	16,385,516	130.6%	7,817,591	9,986,525	127.7%	1.02
19	11,809,025	18,094,545	153.2%	7,338,452	10,448,260	142.4%	1.08
20	11,068,012	19,826,363	179.1%	6,863,768	10,838,381	157.9%	1.13
21	10,324,476	21,550,567	208.7%	6,395,296	11,430,341	178.7%	1.17
22	9,582,145	23,218,004	242.3%	5,934,822	11,904,501	200.6%	1.21
23	8,849,168	24,808,014	280.3%	5,483,869	12,273,557	223.8%	1.25
24	8,128,412	26,281,066	323.3%	5,044,261	12,768,281	253.1%	1.28
25	7,424,221	27,575,719	371.4%	4,617,917	13,164,997	285.1%	1.30
26	6,742,494	28,695,242	425.6%	4,206,617	13,525,267	321.5%	1.32
27	6,087,171	29,592,064	486.1%	3,811,948	13,989,739	367.0%	1.32
28	5,461,861	30,245,549	553.8%	3,435,396	14,373,196	418.4%	1.32
29	4,869,277	30,641,120	629.3%	3,078,183	14,529,804	472.0%	1.33
30	4,312,204	30,749,712	713.1%	2,740,967	14,963,543	545.9%	1.31
31	3,792,106	30,576,185	806.3%	2,424,678	15,197,502	626.8%	1.29
32	3,311,871	30,116,427	909.3%	2,129,897	15,342,504	720.3%	1.26
33	2,872,409	29,376,021	1022.7%	1,856,897	15,528,562	836.3%	1.22
34	2,473,123	28,385,771	1147.8%	1,605,619	15,314,690	953.8%	1.20
35	2,113,111	27,155,125	1285.1%	1,375,903	15,213,182	1105.7%	1.16
36	1,791,025	25,712,759	1435.6%	1,167,760	14,998,577	1284.4%	1.12
37	1,505,604	24,092,692	1600.2%	980,784	14,510,152	1479.4%	1.08
38	1,255,391	22,353,145	1780.6%	814,517	13,494,143	1656.7%	1.07
39	1,037,846	20,521,635	1977.3%	668,327	12,633,848	1890.4%	1.05
40	850,279	18,637,773	2192.0%	541,326	12,103,782	2236.0%	0.98
41	690,257	16,756,818	2427.6%	432,889	9,679,193	2236.0%	1.09
42	555,239	14,902,950	2684.1%	341,450	7,634,655	2236.0%	1.20
43	442,248	13,104,290	2963.1%	265,591	5,938,479	2236.0%	1.33
44	348,578	11,397,267	3269.6%	203,717	4,555,021	2236.0%	1.46
45	271,835	9,795,634	3603.5%	153,828	3,439,512	2236.0%	1.61
46	209,490	8,326,758	3974.8%	114,582	2,561,991	2236.0%	1.78
47	159,881	6,997,140	4376.5%	83,866	1,875,197	2236.0%	1.96
48	120,697	5,798,084	4803.8%	60,246	1,347,069	2236.0%	2.15
49	89,982	4,737,976	5265.5%	42,372	947,423	2236.0%	2.35
50	66,335	3,810,483	5744.3%	28,908	646,379	2236.0%	2.57
51	48,219	3,016,799	6256.5%	19,385	433,444	2236.0%	2.80
52	34,560	2,350,101	6800.1%	12,597	281,666	2236.0%	3.04
53	24,439	1,800,528	7367.3%	7,931	177,330	2236.0%	3.29
54	17,031	1,356,936	7967.6%	4,855	108,555	2236.0%	3.56
55	11,689	1,008,611	8628.6%	2,917	65,234	2236.0%	3.86
56	7,902	739,688	9360.6%	1,750	39,119	2236.0%	4.19
57	5,257	535,810	10192.3%	860	19,237	2236.0%	4.56
58	3,445	384,227	11153.3%	611	13,656	2236.0%	4.99
59	2,243	273,351	12185.4%	421	9,417	2236.0%	5.45
60	1,446	195,974	13555.5%	0	0	0.0%	0.00

Lifetime	388,792,117	791,561,987	203.6%	290,285,077	437,809,353	150.8%	1.35
Lifetime*	229,704,694	257,763,140	112.2%	161,123,028	120,854,999	75.0%	1.50

Note:

- Figures in column A are normalized to reflect the prior rate action authorized by MD (15% on October 10, 2017) rather than the prior rate action approved by other states.

- Figures in column A and D do not reflect any rate action previously authorized by MD.

* Columns A and B are discounted back to the inception date at an interest rate of 4.2%, which is the weighted average maximum valuation interest rate for contract reserves. Columns D and E are discounted back to the inception date at the original pricing interest rate of 5.5%.

Attachment 5
Metropolitan Life Insurance Company
Nationwide Experience Projections With No Rate Increase
Actual to Expected Ratios by Calendar Year
Group Policy Form: G.LTC.1697

Calendar Year	Actual / Projected Experience				Expected Pricing Experience				Accumulative Loss Ratio as of 12/31/2016			
	A	B	C = B / A	D	E	F = E / D	G = C / F	H	I	J = H / I		
	Earned Premium	Incurred Claims	Loss Ratio	Earned Premium	Incurred Claims	Loss Ratio	Expected Ratio	Actual/Projected at 4.2% (on C)	Expected at 5.5% (on F)	Actual to Expected Ratio		
2004	15,224	0	0.0%	15,224	520	3.4%	0.00	0.00	3.4%	0.00		
2005	3,072,938	33,317	1.1%	863,923	35,102	4.1%	0.27	1.1%	4.1%	0.27		
2006	11,981,848	715,303	6.0%	7,710,825	539,537	7.0%	0.85	0.85	4.9%	0.74		
2007	16,482,645	169,535	1.0%	15,082,108	1,340,460	8.9%	0.12	2.9%	8.1%	0.37		
2008	16,827,073	1,717,214	10.2%	15,931,066	1,913,170	12.0%	0.85	5.4%	9.6%	0.56		
2009	16,436,701	1,159,746	7.1%	15,394,936	2,464,040	16.0%	0.44	5.8%	11.2%	0.51		
2010	16,138,869	3,088,403	19.1%	14,765,086	3,162,445	21.4%	0.89	8.2%	13.2%	0.62		
2011	15,775,482	1,811,444	11.5%	14,141,458	3,858,570	27.3%	0.42	8.7%	15.3%	0.57		
2012	15,648,110	3,861,559	24.7%	13,524,058	4,333,485	32.0%	0.77	10.7%	17.3%	0.62		
2013	15,359,757	2,832,958	18.4%	12,934,877	4,748,050	36.7%	0.50	11.5%	19.1%	0.60		
2014	15,230,807	4,110,651	27.0%	12,390,756	5,188,492	41.9%	0.64	12.9%	21.0%	0.61		
2015	14,962,757	4,772,540	31.9%	11,876,849	5,606,677	47.2%	0.68	14.3%	22.8%	0.63		
2016	14,650,879	10,817,066	73.8%	11,377,015	6,076,988	53.4%	1.38	18.4%	24.6%	0.75		
2017	14,541,372	8,254,997	56.8%	10,877,344	6,599,115	60.7%	0.94	20.7%	26.4%	0.79		
2018	15,098,651	9,444,206	62.6%	10,385,666	7,059,922	68.0%	0.92	23.1%	28.2%	0.82		
2019	15,378,398	10,733,061	69.8%	9,904,382	7,555,367	76.3%	0.91	25.6%	30.0%	0.85		
2020	14,677,656	12,127,551	82.6%	9,431,823	8,117,495	86.1%	0.96	28.3%	31.9%	0.89		
2021	13,962,955	13,619,298	97.5%	8,967,970	8,625,630	96.2%	1.01	31.1%	33.7%	0.92		
2022	13,207,659	15,207,185	114.9%	8,503,039	9,163,490	107.8%	1.07	34.1%	35.6%	0.96		
2023	12,500,178	16,879,636	135.0%	8,035,984	9,726,948	121.0%	1.12	37.2%	37.5%	0.99		
2024	11,753,437	18,598,898	158.2%	7,568,242	10,204,644	134.8%	1.17	40.5%	39.4%	1.03		
2025	11,001,052	20,333,279	184.8%	7,101,606	10,713,401	150.9%	1.23	44.0%	41.3%	1.07		
2026	10,247,565	22,043,885	215.1%	6,637,981	11,269,746	169.8%	1.27	47.6%	43.2%	1.10		
2027	9,496,428	23,688,952	249.5%	6,179,219	11,752,494	190.2%	1.31	51.3%	45.1%	1.14		
2028	8,756,486	25,246,220	288.3%	5,727,198	12,226,233	213.5%	1.35	55.1%	47.0%	1.17		
2029	8,029,552	26,657,168	332.0%	5,283,999	12,716,045	240.7%	1.38	59.0%	48.9%	1.21		
2030	7,322,124	27,906,044	381.1%	4,851,758	13,159,579	271.2%	1.41	62.8%	50.7%	1.24		
2031	6,638,055	28,966,258	436.4%	4,432,500	13,620,495	307.3%	1.42	66.7%	52.6%	1.27		
2032	5,982,167	29,784,365	497.9%	4,028,120	14,098,707	350.0%	1.42	70.5%	54.4%	1.30		
2033	5,357,528	30,366,910	566.8%	3,640,350	14,462,735	397.3%	1.43	74.3%	56.2%	1.32		
2034	4,766,639	30,675,524	643.5%	3,270,552	14,817,848	453.1%	1.42	77.9%	58.0%	1.34		
2035	4,212,840	30,708,833	728.9%	2,919,889	15,211,566	521.0%	1.40	81.4%	59.7%	1.36		
2036	3,696,001	30,444,171	823.7%	2,589,473	15,497,889	598.5%	1.38	84.8%	61.4%	1.38		
2037	3,221,325	29,895,654	928.1%	2,280,127	15,736,922	690.2%	1.34	88.0%	63.1%	1.39		
2038	2,787,685	29,081,447	1043.2%	1,992,336	15,827,555	794.4%	1.31	91.0%	64.7%	1.41		
2039	2,394,620	28,021,374	1170.2%	1,726,324	15,762,811	913.1%	1.28	93.8%	66.2%	1.42		
2040	2,041,069	26,727,100	1309.5%	1,482,297	15,666,928	1056.9%	1.24	96.3%	67.6%	1.42		
2041	1,725,507	25,225,723	1461.9%	1,260,356	15,403,290	1222.1%	1.20	98.6%	69.0%	1.43		
2042	1,446,838	23,707,202	1629.1%	1,060,361	14,769,243	1392.9%	1.17	100.7%	70.2%	1.44		
2043	1,203,316	21,804,357	1812.0%	882,011	13,894,698	1575.3%	1.15	102.6%	71.3%	1.44		
2044	992,156	19,958,164	2011.6%	724,778	13,158,874	1815.6%	1.11	104.2%	72.3%	1.44		
2045	810,577	18,075,075	2229.9%	588,066	11,814,527	2009.0%	1.11	105.7%	73.1%	1.45		
2046	656,120	16,206,194	2470.0%	470,961	9,659,547	2051.0%	1.20	106.9%	73.8%	1.45		
2047	526,259	14,371,752	2730.9%	372,084	7,644,677	2054.6%	1.33	108.0%	74.3%	1.45		
2048	417,913	12,598,219	3014.6%	289,925	5,956,745	2054.6%	1.47	108.9%	74.6%	1.46		
2049	328,367	10,921,919	3326.1%	222,674	4,575,103	2054.6%	1.62	109.6%	74.9%	1.46		
2050	255,279	9,363,845	3668.1%	168,530	3,462,762	2054.7%	1.79	110.2%	75.1%	1.47		
2051	196,056	7,935,484	4047.6%	125,645	2,581,612	2054.7%	1.97	110.7%	75.2%	1.47		
2052	149,209	6,645,751	4454.0%	92,075	1,891,854	2054.7%	2.17	111.1%	75.3%	1.48		
2053	112,120	5,492,020	4898.3%	66,198	1,360,168	2054.7%	2.38	111.5%	75.4%	1.48		
2054	83,434	4,468,796	5356.1%	46,500	955,437	2054.7%	2.61	111.7%	75.4%	1.48		
2055	61,312	3,581,466	5841.4%	31,867	654,760	2054.7%	2.84	111.9%	75.4%	1.48		
2056	44,401	2,822,497	6356.8%	21,338	438,436	2054.7%	3.09	112.1%	75.5%	1.49		
2057	31,714	2,191,834	6911.2%	13,882	285,241	2054.7%	3.36	112.2%	75.5%	1.49		
2058	22,363	1,674,776	7489.1%	8,766	180,113	2054.7%	3.64	112.2%	75.5%	1.49		
2059	15,556	1,260,683	8104.2%	5,395	110,844	2054.7%	3.94	112.3%	75.5%	1.49		
2060	10,660	935,779	8778.4%	3,266	67,101	2054.7%	4.27	112.3%	75.5%	1.49		
2061	7,196	685,433	9524.7%	1,878	38,581	2054.7%	4.64	112.4%	75.5%	1.49		
2062	4,789	496,887	10376.0%	1,062	21,824	2054.7%	5.05	112.4%	75.5%	1.49		
2063	3,145	355,555	11306.7%	700	14,381	2054.7%	5.50	112.4%	75.5%	1.49		
2064	2,051	255,371	12452.7%	341	7,003	2054.7%	6.06	112.4%	75.5%	1.49		
2065	1,333	183,418	13757.7%	56	1,149	2054.7%	6.70	112.4%	75.5%	1.49		
2066	886	133,104	15031.2%	4	76	2054.7%	7.32	112.4%	75.5%	1.49		
2067	611	95,959	15701.3%	0	1	2054.7%	7.64	112.4%	75.5%	1.49		
Past	172,583,091	35,089,737	20.3%	146,008,181	39,267,536	26.9%	0.76	18.4%	24.6%	0.75		
Future	216,210,611	756,720,281	350.0%	144,276,896	398,541,815	276.2%	1.27	246.8%	184.5%	1.34		
Lifetime	388,793,702	791,810,018	203.7%	290,285,077	437,809,351	150.8%	1.35	112.4%	75.0%	1.50		

Note:
- Figures in column A are normalized to reflect the prior rate action authorized by MD (15% on October 10, 2017) rather than the prior rate action approved by other states.
- Figures in column D do not reflect any rate action previously authorized by MD.