

**Physicians Mutual Insurance Company**  
2600 Dodge Street  
Omaha, Nebraska 68131

**Actuarial Rate Memorandum**  
**Long-Term Care Policies**  
**December 15, 2016**  
**Maryland**

**1. Purpose of Filing**

This is a rate increase filing for individual Long-Term Care policy forms and riders. The purpose of this rate increase filing is to demonstrate the anticipated loss ratio of these forms after the recommended rate increase meets the requirements under the Code of Maryland Regulations 31.14.02.05. This rate increase filing is not intended to be used for any other purpose.

**2. Scope of Filing**

The proposed rate increase requests below are in accordance with the 15% cap stated in Maryland Regulation COMAR 31.14.01.04A(5). The rate increase requests will apply to the Company's Individual Comprehensive Long-Term Care policy forms listed in section 3 and any related riders.

The rate increase requests vary by benefit period and if an automatic inflationary rider is attached to the base policy. The rate increase request is illustrated in the chart below.

| Requested Rate Increase for Policy Forms P103, P104 |                              |                                 |
|---|------------------------------|---------------------------------|
|   | Rate Inc. Request<br>by Year | Cumulative<br>Rate Inc. Request |
| Limited BP, No Automatic Inflation                  | 6%                           | 6%                              |
| Lifetime BP, No Automatic Inflation                 | 15%                          | 15%                             |
| Limited BP, With Automatic Inflation                | 13%                          | 13%                             |
| Lifetime BP, With Automatic Inflation               | 15%                          | 15%                             |

Limited BP represents policyholders who have benefit periods of 2 to 5 years. Lifetime BP represents policyholders who have a lifetime benefit period.

For policy forms P103 and P104, premium rates were originally filed for both the base policy as well as for all available riders. The rate increase request shown in the chart above is a requested increase on the total premium charged to customers in each of the listed benefit categories.

In order to achieve the rate increase request for the "No Automatic Inflation" benefit categories, base premiums and all attached rider premiums excluding automatic inflationary rider premiums have to be increased by the "No Automatic Inflation" rate increase request percentages shown in the chart above.

For policies in the “With Automatic Inflation” benefit categories, achieving the requested rate increase is more complicated. Policies in these benefit categories are rated as follows: The base policy and rider premiums (other than automatic inflationary rider premiums) have been increased by the amounts listed in the “No Automatic Inflation” rate increase request. Automatic inflationary rider premiums are then increased at amounts so that the aggregate of the base policy premium, any non-inflationary rider premiums, and the automatic inflationary rider premium equate to the “With Automatic Inflation” rate increase shown in the chart above.

The ratio of automatic inflationary rider premium to total premium varies by policy depending on issue age, benefit options and purchased riders. As a result, when base premiums and all attached rider premiums excluding automatic inflationary rider premiums are given one rate increase and automatic inflationary rider premiums are given a different rate increase, the total increase in policy level premiums will vary. The requested rate increase in the above chart for “With Automatic Inflation” benefit categories represent the average increase in total premium for policies in those benefit categories (identified in bold below). The charts below summarize the rate increase taken on the automatic inflationary rider premiums and the resulting range of policy level total premium increases.

| Requested Rate Increase for Policy Forms P103, P104 |                              |                                 |
|---|------------------------------|---------------------------------|
|   | Rate Inc. Request<br>by Year | Cumulative<br>Rate Inc. Request |
| Limited BP Automatic Inflationary Riders            | 23.5%                        | 23.5%                           |
| Lifetime BP Automatic Inflationary Riders           | 15.0%                        | 15.0%                           |

| Resulting Policy Level Total Premium Increase for Policies With Automatic Inflationary Riders |                                   |                                   |
|---|-----------------------------------|-----------------------------------|
|   | Total Premium<br>Increase By Year | Cumulative<br>Premium<br>Increase |
| <b>Limited BP, With Automatic Inflation – Average</b>   | <b>13%</b>                        | <b>13%</b>                        |
| Limited BP, With Automatic Inflation – Minimum  | 9%                                | 9%                                |
| Limited BP, With Automatic Inflation – Maximum  | 15%                               | 15%                               |
| <b>Lifetime BP, With Automatic Inflation – Average</b>  | <b>15%</b>                        | <b>15%</b>                        |
| Lifetime BP, With Automatic Inflation – Minimum   | 15%                               | 15%                               |
| Lifetime BP, With Automatic Inflation – Maximum   | 15%                               | 15%                               |

On this rate increase request, Contingent Benefit Nonforfeiture (CBN) will be offered to all customers who lapse their policy within 120 days of receiving the rate increase except for those who own a Shortened Benefit Period Nonforfeiture Rider.

Customers also have the option to make changes to their policy (such as reducing their benefit amount or benefit period, increasing their elimination period, or removing riders) which allows them the flexibility to set their benefits and premium appropriately given their situation.

### 3. Description of Benefits

#### **Policy Form P103MD, issued in Maryland from 2001 – 2006**

Non-Tax Qualified Reimbursement Comprehensive Long-Term Care Policy

Issue Ages 25-84

Policy form P103MD and related rider attachments

#### **Policy Form P104MD, issued in Maryland from 2001 – 2006**

Tax Qualified Reimbursement Comprehensive Long-Term Care Policy

Issue Ages 25-84

Policy form P104MD and related rider attachments

### 4. Marketing Method

The above policy forms and riders were offered through Physicians Mutual's Agency force and were also available to and sold by brokers. All policy forms are no longer being marketed.

### 5. Underwriting Description

These policy forms were fully underwritten with the use of various tools in addition to the application; tools which may have included medical records, an attending physician's statement, telephone interview and/or face-to-face assessment.

### 6. Renewability

These policy forms are guaranteed renewable.

### 7. Reason for Rate Increase Request

A rate increase on these policy forms and related rider attachments is necessary due to updated information on combined lapse and mortality experience compared to the best industry information available at the time these products were priced. In addition, expected future morbidity assumptions have been updated using the most up-to-date and comprehensive data available.

Loss ratio for the purpose of this memorandum is defined as the ratio of Incurred Claims to Earned Premiums without the inclusion of Active Life Reserves, Waiver of Premium, or Return of Premium Riders. Past experience and future projections demonstrate anticipated lifetime loss ratios are in excess of 60%. The rate increases needed to meet the rate stability 58/85 loss ratio standards for Maryland are shown below.

| Required Rate Increase for Policy Forms P103, P104 |      |
|--|------|
| Limited BP, No Automatic Inflation                 | 12%  |
| Lifetime BP, No Automatic Inflation                | 83%  |
| Limited BP, With Automatic Inflation               | 198% |
| Lifetime BP, With Automatic Inflation              | 381% |

Historical nationwide rate increase filings for the policy forms listed in section 3 have been 19%, 10% and 40% which equates to a cumulative rate increase of 83.3%. The nationwide rate increase filing currently underway for these policy forms is shown in the table below:

| Requested Rate Increase for Policy Forms P103, P104 |                              |                                 |
|---|------------------------------|---------------------------------|
|   | Rate Inc. Request<br>by Year | Cumulative<br>Rate Inc. Request |
| Limited BP, No Automatic Inflation                  | 0%                           | 0%                              |
| Lifetime BP, No Automatic Inflation                 | 10%                          | 10%                             |
| Limited BP, With Automatic Inflation                | 50%, 50%                     | 125%                            |
| Lifetime BP, With Automatic Inflation               | 60%, 60%                     | 156%                            |

Based on Maryland Regulation COMAR 31.14.01.04A(5), the requested rate increases in section 2 represent the rate increase request in the state of Maryland. To the extent that this rate increase request is less than what is shown in the table above, future rate increase requests will be made to ensure equitable premium rates nationwide.

## 8. Premiums

Premiums are unisex, level and payable for life, with a 10-pay option offered. The premiums vary by issue age, initial benefit amount, benefit period, elimination period, benefit rider selection, eligible discounts, premium payment mode and underwriting class.

Modal Payment factors for policy forms P103 and P104 are shown in the table below:

|                                   |       |
|-----------------------------------|-------|
| Monthly Direct Bill               | 1.00  |
| Monthly Electronic Funds Transfer | 1.00  |
| Quarterly                         | 2.90  |
| Semi-Annual                       | 5.60  |
| Annual                            | 11.00 |

Underwriting Class factors are shown in the following table:

|             |      |
|-------------|------|
| Preferred   | 0.85 |
| Standard    | 1.00 |
| Substandard | 1.80 |

A 20% spouse discount was applied to the base policy and all riders.

## 9. Projected Experience and Lifetime Loss Ratios

Nationwide historical and projected loss ratios, both before and after the rate increase, are shown in **Exhibit 3**. The historical data used in the projections are consistent with the data shown in **Exhibit 2**. The projections were produced using an asset share model and the assumptions described in Section 13. These assumptions were shown to be best estimates as demonstrated in Section 10. Below is a summary of projected lifetime loss ratios for policy forms P103 and P104:

|                                       | Projected Lifetime Loss Ratio w/out Rate Inc. | Projected Lifetime Loss Ratio with Rate Inc. |
|---------------------------------------|---|--|
| Limited BP, No Automatic Inflation    | 64.8%   | 63.9%  |
| Lifetime BP, No Automatic Inflation   | 83.1%   | 79.7%  |
| Limited BP, With Automatic Inflation  | 136.9%  | 129.8%                                       |
| Lifetime BP, With Automatic Inflation | 198.0%  | 186.4%                                       |

## 10. Premium Increase Application

The aggregate rate increase requested for policy forms P103 and P104 and related rider attachments included in this filing is 13%. This aggregate rate increase percentage was determined based on our nationwide mix of business.

Premium Rate Schedules with the requested increase are shown in **Exhibit 4**.

## 11. Proposed Effective Date

This rate increase will apply to policies on their policy anniversary date following a 60-day policyholder notification period. In no event will any policy receive this rate increase less than one year after receiving the most recent rate increase implemented in Maryland.

## 12. 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. Further, the preparation of the data and assumptions included in this filing were completed by additional actuaries and non-actuaries of Physicians Mutual. Although I have not audited this information, I have reviewed it for reasonableness. To the extent that it is materially incomplete or inaccurate, the contents of this memorandum may be affected.

I certify that, to the best of my knowledge and judgment, this entire rate filing is in compliance with applicable laws and that it complies with Actuarial Standard of Practice #8, and that the premiums charged are not excessive or unfairly discriminatory. This filing will enhance premium rate adequacy, however, it is not the full rate increase that can be actuarially justified. Future rate action may be necessary before benefits can be certified as reasonable in relation to premiums.



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