



**Government of the District of Columbia**  
**Vincent C. Gray, Mayor**  
**Department of Insurance, Securities and Banking**



**Chester A. McPherson**  
**Interim Commissioner**

## **Explanatory Note**

Pursuant to section 7(e) of the Hospital and Medical Services Corporation Regulatory Act of 1996, effective April 9, 1997 (D.C. Law 11-245; D.C. Official Code § 31-3506(e) (“Act”), the Commissioner of the Department of Insurance, Securities and Banking (“Department”) is directed to conduct a review of the surplus of Group Hospital and Medical Services, Inc. (“GHMSI”) that is attributable to the District and determine whether it is excessive. As a part of the Commissioner’s determination and in anticipation of a hearing that will be held to determine whether GHMSI’s surplus is unreasonably large and inconsistent with its community health reinvestment obligation, this independent Report was prepared for the Department by Rector & Associates, Inc., an actuarial firm.

The Report analyzes GHMSI’s 2011 report that was filed with the Department pursuant to 26A DCMR § 4601.1, and will serve as a resource for the Commissioner, any interested parties and the public in examining whether GHMSI’s surplus should be considered excessive under the Act and has complied with its community health reinvestment obligation. The Report is advisory in nature, and the Commissioner will not be bound by its analysis or conclusions.

**RECTOR & ASSOCIATES, INC.**

**REPORT TO THE D.C. DEPARTMENT OF INSURANCE, SECURITIES  
AND BANKING**

**GROUP HOSPITALIZATION AND MEDICAL SERVICES, INC.**

**DECEMBER 9, 2013**

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Rector & Associates, Inc. (“R&A”) was retained by the D.C. Department of Insurance, Securities and Banking (“DISB”) in accordance with D.C. Statutes §§ 31-1402 and 31-3506(h) to assist with the DISB’s examination of the surplus position of Group Hospitalization and Medical Services, Inc. (“GHMSI”) in accordance with D.C. Statute § 31-3506(e).

The scope of our examination, as requested by the DISB, consisted of the following:

1. An analysis of the standards to be used when reviewing GHMSI’s surplus position in accordance with D.C. statutes and regulations and the decision of the D.C. Court of Appeals in *D.C. Appleseed Center for Law & Justice, Inc. v. DISB*, 54 A.3d 1188, (D.C. 2012) (“Appeals Court Decision”);
2. A review of the actuarial model used to analyze GHMSI’S surplus position;
3. A determination of the appropriate standards to be used for analyzing GHMSI’s surplus position;
4. A determination of the amount of surplus GHMSI should maintain to satisfy the appropriate standards; and
5. An analysis of GHMSI’s community health reinvestment expenditures during 2011 and 2012; its projected community health reinvestment expenditures during 2013; and its anticipated community health reinvestment expenditures for 2014 and future years.

As part of our examination and as requested by the DISB, we analyzed the actuarial model used by Milliman, Inc. (“Milliman”) in its work on behalf of GHMSI as GHMSI’s actuarial consultant, as documented in a May 31, 2011 report from Milliman entitled “Need for Statutory Surplus and Development of Optimal Surplus Target Range” (“Milliman Report”) and in several supplemental materials received from Milliman and GHMSI concerning the model and assumptions used in the model. We also considered several written materials regarding GHMSI’s surplus position that were provided by D.C. Appleseed Center for Law and Justice, Inc. (“Appleseed”) and by Actuarial Risk Management (“ARM”), as prepared on behalf of Appleseed. Finally, we considered the holdings and reasoning set forth in the Appeals Court Decision.

The following constitutes our findings and report.

# **I. LEGAL AND REGULATORY STANDARDS FOR DETERMINATION OF EXCESSIVE SURPLUS**

## **A. Applicable Laws**

### **1. Congressional Charter**

In 1939, the United States Congress created GHMSI by Congressional charter<sup>1</sup> to provide individual and group contracts to provide health care services.<sup>2</sup> The GHMSI Charter also provides that:

This corporation is hereby declared to be a charitable and benevolent institution and all of its funds and property shall be exempt from taxation other than taxes on real estate.<sup>3</sup>

### **2. Medical Insurance Empowerment Amendment Act**

Effective March 25, 2009, the Council of the District of Columbia enacted the Medical Insurance Empowerment Amendment Act (“MIEAA”) which, among other things, established the current process for the Commissioner’s review of GHMSI’s surplus and charitable activities.<sup>4</sup> MIEAA provides that:

A corporation shall engage in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency.<sup>5</sup>

MIEAA defines community health reinvestment expenditures to mean:

expenditures that promote and safeguard the public health or that benefit current or future subscribers, including premium rate reductions.<sup>6</sup>

Further, MIEAA provides:

The Commissioner ... shall, on a basis no less frequently than every 3 years, review the portion of the surplus of the corporation that is attributable to the District and may issue a determination as to whether the surplus is excessive. The surplus may be considered excessive only if:

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<sup>1</sup> GHMSI originally was incorporated as Group Hospitalization, Inc. and later merged with Medical Services, Inc. to form GHMSI. See Pub. L. 103-127; 106 Stat. 1336 (1993) (“GHMSI Charter”).

<sup>2</sup> See GHMSI Charter at § 2.

<sup>3</sup> See GHMSI Charter at § 3.

<sup>4</sup> MIEAA amended provisions of the HMSCR Act, which previously was enacted by the Council to establish a comprehensive statutory framework for regulating GHMSI’s provision of health care services.

<sup>5</sup> D.C. Code § 31-3505.01.

<sup>6</sup> D.C. Code § 31-3501(1A).

(1) The surplus is greater than the appropriate risk-based capital requirements as determined by the commissioner for the immediately preceding calendar year; and

(2) After a hearing, the Commissioner determines that the surplus is unreasonably large and inconsistent with the corporation's obligation under section 6(a)<sup>7</sup> [the community health reinvestment mandate].

### 3. MIEAA Regulations

Subsequent to MIEAA's enactment, the DISB issued regulations further addressing the process for the Commissioner's review of GHMSI's surplus and charitable activities ("MIEAA Regulations"). First, the MIEAA Regulations require that certain hospital and medical services corporations, which includes GHMSI:

Shall file a financial report with the Commission which details the company's surplus and examines whether the company's surplus is considered excessive under the Act.... The report ... shall be filed with the Commissioner for his review by June 1<sup>st</sup> of each year....<sup>8</sup>

In addition, the MIEAA Regulations expand on the method for determining the amount of GHMSI's excess surplus, if any. The MIEAA Regulations provide that:

In determining whether the surplus is excessive, the Commissioner shall consider the National Association of Insurance Commissioners' Risk Based Capital Requirements for health insurers pursuant to the Health Organizations RBC Amendment Act of 2002, effective June 18, 2003 (D.C. Law 14-312; D.C. Official Code §§ 31-3851.01 *et seq.* (2008) Supp.)); and the Blue Cross/Blue Shield Association capital requirements.<sup>9</sup>

In addition, the MIEAA Regulations define unreasonably large surplus for purposes of MIEAA to mean:

... surplus of a corporation that is greater than the sum of the following:

(a) The appropriate NAIC risk-based capital level requirements determined by the Commissioner and the Blue Cross/Blue Shield Association capital requirements based on the company's surplus from the immediately preceding year; and

(b) The amount of surplus needed by the corporation to meet its expected and unanticipated contingencies.

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<sup>7</sup> D.C. Code § 31-3506(e). Note that the reference to section 6(a) is a reference to the DC Code § 31-3505.01, as enacted by MIEAA.

<sup>8</sup> 26-A DCMR §§ 4601.1 and 4601.2.

<sup>9</sup> 26-A DCMR § 4601.4. The NAIC risk-based capital ("RBC") system provides a capital adequacy standard that is related to the risks held by an insurer, including assets, underwriting and business risk. The RBC system provides for regulatory action if insurers falls below certain RBC thresholds.

## B. Appeals Court Decision

In 2011, Appleeed brought an action in the D.C. Court of Appeals for review of the DISB's October 29, 2010 Final Decision and Order with respect to the DISB's review of GHMSI's surplus as of December 31, 2008 ("2010 Decision")<sup>10</sup>. In the 2010 Decision, Commissioner Purcell (the DISB Commissioner at the time of the 2010 Decision) found that "GHMSI's surplus as of December 31, 2008 is not unreasonably large nor excessive."

In the Appeals Court Decision, the D.C. Court of Appeals first reviewed the relevant MIEAA provisions and decided that the DISB is required to make two determinations regarding GHMSI's surplus,:

- Whether GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency<sup>11</sup>; *and*
- Whether GHMSI's surplus exceeds appropriate RBC requirements and is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate.<sup>12</sup>

The D.C. Court of Appeals further indicated that:

In applying the statute, the Commissioner's analysis focused exclusively on determining whether GHMSI's surplus was 'unreasonably large' based on actuarial studies and made no determination as to whether the size of the surplus was 'inconsistent with the corporation's obligation under section 6(a) [the community health reinvestment mandate].' This approach is based on the Commissioner's understanding of the statutory scheme as providing that 'GHMSI's surplus may only be 'excessive' if the Commissioner determines that the surplus is 'unreasonably large.'" ... In short, it is apparent that the Commissioner interpreted the MIEAA to require a two-step determination whereby there is, first, a determination whether GHMSI's surplus was 'unreasonably large,' and, second, a separate determination whether the surplus, if determined to be unreasonably large, was consistent with GHMSI's community health reinvestment obligation.<sup>13</sup>

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<sup>10</sup> DISB Order No. 09-MIE-007.

<sup>11</sup> D.C. Code § 31-3505.01.

<sup>12</sup> D.C. Code § 31-3506(e). Note that the reference to section 6(a) is a reference to the DC Code § 31-3505.01 (2009), as enacted by MIEAA.

<sup>13</sup> *D.C. Appleeed Center for Law & Justice, Inc. v. DISB*, No. 10-AA-1461, slip op. at 46 (D.C. Court of Appeals Sep. 13, 2012).

Based on further review of the statutory scheme and legislative history surrounding MIEAA, the D.C. Court of Appeals went on to hold that:

... [a]s a matter of law, the two determinations required by § 31-3506(e)(2) – whether GHMSI’s surplus is ‘unreasonably large’ and whether the surplus is ‘inconsistent’ with GHMSI’s community health reinvestment obligation under § 31-3505.01 – must be made in tandem, not *seriatim*, to give full effect to the statute.<sup>14</sup>

The D.C. Court of Appeals further held that:

As to the specification of how surplus and community reinvestment are to be calculated and balanced, we defer to the agency’s reasonable discretion in light of its expertise in this subject matter. We, therefore, remand the case to the Department for an express interpretation of the MIEAA that captures all the relevant provisions, in light of the statute’s legislative purpose.<sup>15</sup>

## II. GHMSI AND MILLIMAN ANALYSIS OF GHMSI SURPLUS POSITION

On June 1, 2011, GHMSI filed its required financial report regarding its surplus as of December 31, 2010 in accordance with 26-A DCMR §§ 4601.1 and 4601.2. In its report, GHMSI indicated that it had asked Milliman to conduct a *de novo* review of the surplus levels of GHMSI to determine whether Milliman’s previously adopted surplus “range” of 750% to 1050% RBC-ACL was still appropriate, reasonable and prudent. Milliman’s review was intended to be forward-looking and apply to the 2011-2013 time period. The Milliman Report was included as an attachment to GHMSI’s July 1, 2011 financial report.

In the Milliman Report, Milliman indicated the following:

Based on our analysis, we conclude that an appropriate target for GHMSI’s surplus falls in the range of **1050% to 1300% of RBC-ACL**, taking into account the impact of federal health care reforms currently in effect. These reforms include: (a) the new minimum loss ratio (MLR) standards that became effective in 2011, requiring the payment of rebates if minimum loss ratio levels are not met, (b) the increased regulatory review of premium rate increases, and (c) the new benefit coverage requirements that became effective in 2010 as a result of the passage of the PPACA.<sup>16</sup> [Emphasis in original.]

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<sup>14</sup> *D.C. Appleseed Center for Law & Justice, Inc. v. DISB*, No. 10-AA-1461, slip op. at 53 (D.C. Court of Appeals Sep. 13, 2012).

<sup>15</sup> *D.C. Appleseed Center for Law & Justice, Inc. v. DISB*, No. 10-AA-1461, slip op. at 53 (D.C. Court of Appeals Sep. 13, 2012).

<sup>16</sup> See page 5 of the Milliman Report. Although Milliman refers to its findings as a surplus target range, its modeling calculations actually result in two different data points that Milliman then uses as the low and high end of what it describes as a range:

- A data point of 1040% of RBC, which Milliman calculated using a 7% premium growth level with a two-year trend miss (Milliman refers to this as the low end of its range); and

While Milliman provides a surplus target range, Milliman does not calculate a point or best estimate. A point estimate will define a specific optimal capital level. By itself, a range may imply that any result within the range is equally valid. Proponents advocating a higher level of surplus may use a range as justification for maintaining surplus levels at the high end of the range. Based upon the same reasoning, proponents who advocate a lower level of surplus may argue for using the low point in the range.

More problematically, there is no universally accepted approach establishing an appropriate range. Milliman established its range by electing two assumptions (trend miss and premium growth) and running the model with different values for those assumptions. However, other assumptions could just as easily have been chosen. We believe it is better to use a best estimate assumption and to calculate an optimal capital range relative to that best estimate. A point value will give the company a capital level to strive toward when balancing the needs for solvency protection with the requirement for community health investments.

Milliman's range of 1050% to 1300% of RBC-ACL does **not** include the impact of federal health care reforms that were not in effect as of the date of Milliman's analysis. As to those reforms, Milliman indicated that it "separately considered the impact on the surplus range of potential increases in adverse selection in the individual and small group markets that would not be offset by the risk mitigation programs."<sup>17</sup> As a result of its analysis, Milliman indicated that:

**We estimate that the surplus target range could increase by 100% to 150% of RBC-ACL, if the potential for such adverse selection were taken into account. We would characterize this as an indication of the directional nature of the impact of the health care exchanges, rather than a precise quantification of their potential financial consequences.**<sup>18</sup> [Emphasis in original.]

Accordingly, Milliman's "range"—including all aspects of federal health care reform—can be thought of as consisting of 1150% to 1450% RBC-ACL.

### **III. ANALYSIS OF STANDARDS FOR DETERMINATIONS OF GHMSI'S SURPLUS POSITION**

#### **A. Use of Actuarial Model For Determinations of GHMSI's Surplus Position**

In order to project their long-term surplus needs, health insurance companies typically use various financial forecasting models. A primary methodology used by GHMSI is an actuarial model that Milliman developed, as documented in the Milliman Report and supplemental written materials we received regarding the model.

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- A data point of 1300% of RBC, which Milliman calculated using an 11% premium growth level with a three-year trend miss (Milliman refers to this as the high end of its range).

<sup>17</sup> See page 5 of the Milliman Report.

<sup>18</sup> See page 5 of the Milliman Report.

## **1. Milliman's Actuarial Model**

In general terms, Milliman's model consists of three components. First, Milliman uses a stochastic modeling process to generate hundreds of thousands of potential gain or loss outcomes, taking into account a number of potential events and the probability of the occurrence and relative severity of those events. In order to be appropriately conservative, this stochastic modeling process incorporates and measures the possibility that extremely adverse events could occur, including the possibility that multiple adverse events could occur simultaneously. Once the hundreds of thousands of potential gain or loss outcomes are calculated (including outcomes resulting from multiple adverse events occurring simultaneously), Milliman ranks all of the resulting outcomes from the most favorable gain outcome to the least favorable loss outcome.

From the distribution of gain and loss outcomes of the stochastic model, a desired "confidence level" can be determined. For example, if Milliman believes that a particular test should be satisfied at a 98% confidence level, Milliman would select the loss outcome that leads to the 98% worst result of the hundreds of thousands of possibilities modeled. If Milliman believes the test should be satisfied at a 75% confidence level, Milliman would select the loss outcome leading to the 75% worst result.

Second, Milliman incorporates the financial results associated with the selected loss outcome into pro-forma financial projections to determine what the impact to GHMSI's surplus would be if the selected loss outcome was in fact to occur. For example, this pro-forma process would allow Milliman to determine what would happen to GHMSI's surplus, as measured by RBC-ACL, if GHMSI sustained losses equal to the 98% worst possible result, or the 75% worst possible result, as calculated pursuant to the stochastic modeling process. Milliman can thereby determine how much surplus it believes GHMSI needs now to be able to sustain such losses and still remain above specified RBC thresholds at the end of three years based on selected confidence levels.

Finally, because Milliman's assumptions in the processes described above only included the impact of those federal health reform measures that had been implemented at the time of Milliman's analysis, Milliman estimated the amount by which the surplus targets produced under its model might need to be increased to take into account the potential impact of health care reform provisions that were not yet in effect at the time of Milliman's analysis. Although Milliman provided an estimate of the potential increase in GHMSI's surplus target range, it characterized its estimate as an indication of the directional nature of the impact of health care exchanges, rather than a precise quantification of their potential financial consequences.

## **2. R&A Response to the Milliman Approach**

We performed an extensive review of the Milliman Report, supplemental written materials provided by Milliman and GHMSI regarding the Milliman actuarial model, and written materials regarding the Milliman actuarial model provided by Appleseed and by ARM on Appleseed's behalf. We also had several lengthy discussions in person and/or in telephone conferences with Milliman, GHMSI, Appleseed, and ARM representatives regarding the Milliman actuarial model.

Based on our analysis, we conclude that it is appropriate to use the Milliman actuarial model as a way of analyzing GHMSI's surplus position. However, we identified certain conceptual revisions that we believe should be made to the Milliman approach. The conceptual revisions that we made to the model are described in Section IV.A. of this Report.

In addition, we identified certain specific assumptions used by Milliman in its stochastic model that we believe should be adjusted. We made the adjustments and asked Milliman to recalculate starting surplus requirements based on those modified assumptions. The assumptions that were adjusted and our reasoning behind the adjustments are described in Section IV.B. of this Report.

As noted above, in reaching these conclusions, we took into account comments provided by Appleseed and ARM on Appleseed's behalf regarding the Milliman actuarial model. As previously indicated, we met with Appleseed, ARM, GHMSI, and Milliman staff and discussed Appleseed's comments regarding the Milliman actuarial model in those meetings. The comments provided by Appleseed and ARM on Appleseed's behalf regarding the Milliman actuarial model and our analysis of those comments, including how we took those comments into account in our analysis, are described in Section VI of this Report.

### **B. Definition of Standards to Be Used In Actuarial Model For Determinations of GHMSI's Surplus Position**

In the Appeals Court Decision, the D.C. Court of Appeals made clear that in accordance with the MIEAA standards, the DISB is required to make two determinations regarding GHMSI's surplus:

- Whether GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency;<sup>19</sup> *and*
- Whether GHMSI's surplus exceeds appropriate RBC requirements and is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate.<sup>20</sup>

The D.C. Court of Appeals also clearly stated that those two determinations must be made in tandem, not *seriatim*, to give full effect to the relevant DC statutes.

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<sup>19</sup> D.C. Code § 31-3505.01.

<sup>20</sup> D.C. Code § 31-3506(e). Note that the reference to section 6(a) is a reference to the DC Code § 31-3505.01 (2009), as enacted by MIEAA.

Although the Milliman actuarial model can be a helpful tool in making both determinations, in order to comply with the Appeals Court Decision, decisions regarding the following two key inputs to the model must be made in a manner consistent with the intent of the MIEAA standards:

- RBC levels (i.e., the RBC levels that GHMSI should strive not to fall below in order not to become financially unsound); and
- Confidence levels (i.e., the degrees of certainty desired regarding the likelihood of GHMSI not falling below the selected RBC levels).

For the reasons described in Section III.C. of this Report, we conclude that the DISB can make both required determinations by measuring GHMSI's surplus against a "benchmark" that is developed using two tests: 1) one test consisting of how much surplus GHMSI needs not to fall below a 200% RBC level at a 98% confidence level, and 2) the other test consisting of how much surplus GHMSI needs not to fall below a 375% RBC level at an 85% confidence level. Stated another way, we conclude that GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency (i.e., it meets the first determination) *and* does not possess surplus that is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate (i.e., it meets the second determination) if GHMSI's surplus does not exceed the benchmark. We therefore conclude that, if GHMSI's surplus is greater than the benchmark, it is not engaging in community health reinvestment to the maximum feasible extent (i.e., it does not meet the first determination) and it has surplus that is unreasonably large and inconsistent with its community health reinvestment mandate (i.e., it does not meet the second determination).

As described in Section IV.C. of this Report, GHMSI needs to have its surplus not fall below a 958% RBC level in order to meet the first test (200% RBC level at a 98% confidence level) and have its surplus not fall below a 746% RBC level in order to meet the second test (375% RBC level at an 85% confidence level). Because GHMSI should meet both tests to comply with the intent of the MIEAA standards, we conclude that, currently, when determining whether GHMSI is satisfying its obligations under the MIEAA provisions, GHMSI should have a surplus target of 958% RBC. It should be noted, however, that the selection of a target of 958% RBC implies a degree of precision that does not, in fact, exist. The preceding paragraphs could be read to imply that if GHMSI's surplus is at a 960% RBC level rather than at a 958% RBC level, its surplus is excessive and GHMSI is not engaging in community health reinvestment to the maximum feasible extent, whereas if GHMSI's surplus is at a 955% RBC level rather than a 958% RBC level, then the opposite conclusion should be drawn. Given the numerous variables and judgments that are necessary to select the assumptions underlying the calculations, this implied level of precision is misleading. Further, GHMSI's actual RBC will change from year to year even without any significant underlying business changes.

For these reasons, we describe the 958% RBC level as a target (a goal) rather than as a precise and inflexible measuring stick. Further, even if the target level could be determined precisely, it would be impractical for the DISB to require GHMSI to increase community health reinvestment expenditures, or to reduce expenditures in order to build surplus, merely because of relatively

modest fluctuations in surplus that happen normally from year to year. Accordingly, we have also concluded that it makes sense to establish a range around the 958% RBC target, which could be considered a “safe harbor” of sorts.

To arrive at an appropriate range, we reviewed changes in GHMSI’s RBC historical levels over the period 1999-2012. Although GHMSI’s RBC varied from year to year by 100 or more basis points during the early part of the period, most year to year changes since 2004 have been less than 100 basis points. The average year to year change during the 2004-2012 period was 82.5 basis points. For these reasons, we have selected a range consisting of the target level surplus (958% RBC) +/- approximately 82.5 basis points.

**For the reasons described above, we conclude that GHMSI should strive for a target of 958% RBC and that GHMSI’s surplus should be measured against a Benchmark Range of 875% -1040% RBC.** If GHMSI’s surplus exceeds the Benchmark Range, it should begin increasing its community health reinvestment expenditures, including rate moderation, so that GHMSI can comply with the “maximum feasible” requirement. If GHMSI’s surplus falls below the Benchmark Range, it should concentrate on building surplus so it can be sure to remain financially sound. Even if GHMSI is within the Benchmark Range, GHMSI should strive to be at the 958% RBC target rather than consistently above or below it.

It is important to point out that we are not saying that any point within this range is equally valid, so that it would be “safe” for GHMSI to spend down to 875% RBC or so that it would be appropriate for GHMSI to try to maintain a surplus of 1040% RBC. Rather, GHMSI should target a surplus level of 958% RBC. The range of 875%-1040% RBC means only that, due to the imprecision in the available measures and in the assumptions underlying them, and because GHMSI’s RBC level will normally rise and fall from year to year, if GHMSI’s surplus stays within the 875% - 1040% RBC range, it is the functional equivalent of GHMSI being at the 958% RBC target for purposes of the MIEAA standards.

It also is important to point out that it is not necessary for GHMSI to carry a “buffer” above the RBC Benchmark Range. The calculations leading to the Benchmark Range already carry within them appropriate levels of conservatism due to two aspects of the modeling process:

- First, the assumptions that are used in the modeling process take into account extremely adverse events that could occur, including the possibility that multiple adverse events could occur simultaneously.
- Second, when the health RBC formula was devised (and in subsequent revisions to the formula), the individual risk factors that comprise the formula were developed with the intent to achieve a high level of confidence that an insurer would not become insolvent. In other words, the RBC formula was constructed with a high degree of conservatism embedded into the formula.<sup>21</sup>

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<sup>21</sup> Our understanding is that although the health RBC formula was not originally calibrated to achieve specific confidence levels with respect to the entire formula or individual risk factors, certain risk factors were developed on the basis of a 90% to 95% confidence level. See Report of the American Academy of Actuaries to the NAIC Capital Adequacy (E) Task Force dated January 31, 2011.

Accordingly, in our judgment, it is not necessary to include any additional conservatism above the Benchmark Range. GHMSI should strive to be as close to the 958% RBC target as possible, neither building surplus above the Benchmark Range nor depleting surplus below the Benchmark Range.

As discussed in Section I.A. of this Report, MIEAA requires the DISB to conduct a review of GHMSI's surplus at least every three years. It is our understanding that the DISB is in the process of reviewing GHMSI's surplus as of December 31, 2011. As of that date, GHMSI had an RBC ratio of 998%. We note that this 998% RBC ratio is above the 958% RBC target but within the Benchmark Range of 875%-1040% RBC.

Finally, we note that the calculations supporting the 958% RBC target surplus and the 875% - 1040% Benchmark Range, although based on historical information, are informed by current assumptions. The calculations are prospective in nature and should be viable for up to three years from the most recent year end, assuming no major changes in GHMSI's underlying business or in the business environment affecting the company. Accordingly, absent any major changes affecting GHMSI, the 958% RBC surplus target and the 875% - 1040% Benchmark Range should be viable from now through GHMSI's December 31, 2015 financial statement.

### **C. Quantification of Standards To Be Used In Actuarial Model For Determinations of GHMSI's Surplus Position**

In the Milliman actuarial model, the surplus level that GHMSI needs to maintain to avoid specific negative consequences and the percentage of certainty, or confidence level, that is necessary for GHMSI to not fall below the selected RBC level, are the measures that must be selected to determine whether GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency *and* does not possess surplus that is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate. In other words, how serious (both from a financial and operational standpoint) are the consequences to GHMSI if it falls below specific RBC percentage thresholds? Based on the severity of those consequences, how certain do we need to be that GHMSI will not fall below those selected RBC percentage thresholds?

After discussions with GHMSI and Appleseed representatives and analysis of the appropriate RBC and confidence levels, we believe the following two standards are appropriate for purposes of analyzing whether GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency *and* does not possess surplus that is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate: **1) a 98% confidence level that GHMSI's RBC level will remain above a 200% RBC level; and 2) an 85% confidence level that GHMSI's RBC level will remain above a 375% RBC level.**

## 1. 98% Confidence Level Relative to 200% RBC Threshold

In order to select appropriate RBC and confidence levels to be used in the Milliman actuarial model, we first considered the adverse financial and regulatory consequences that would result if GHMSI falls below specific RBC percentage thresholds. If GHMSI's surplus falls below the 200% RBC level, two events are triggered that could have significant and deeply damaging consequences for GHMSI:

- **RBC “Company Action Level” Oversight.** The U.S. insurance regulatory framework for monitoring insurers' solvency relies heavily on insurers' RBC results as a method of assessing insurers' financial and operational risks and their ability to withstand future financial and operations crises. In this regard, we noted that the MIEAA Regulations direct the Commissioner to consider the RBC requirements for health insurers in determining whether surplus is excessive.<sup>22</sup>

Under this system, insurance regulators, including the DISB, consider a 200% RBC level to be a significant indicator of very real problems with an insurer's financial and operational strength. Once an insurer falls below a 200% RBC level, insurance regulators take steps to much more closely monitor the insurer's current and future financial position.<sup>23</sup>

If an insurer's surplus falls below a 200% RBC level (but remains above a 150% RBC level), the insurer is considered to be at the “Company Action Level”. At the 200% RBC threshold level, the insurer would be required to formally file a corrective action plan with the DISB. The corrective action plan is required to include a comprehensive financial plan that identifies the conditions that contributed to the insurer's financial condition; contains proposals to correct the financial problems; and provides projections of the insurer's financial condition, both with and without the proposed corrections. The DISB then would closely monitor and review the insurer's corrective action plan, finances, and operations.

- **Loss of BCBS Trademark.** If GHMSI's surplus falls below a 200% RBC level, the BlueCross BlueShield Association (“BCBSA”) could terminate GHMSI's use of the BCBS trademark. GHMSI's loss of the BCBS trademark would be a significant and potentially catastrophic event both from a financial and operational standpoint. The consequences of losing the BCBS trademark include the loss of BCBS' product recognition and favorable out-of-network reimbursement rates and losing the ability to offer benefits in certain large national accounts and in the Federal Employees Health Benefits Program.

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<sup>22</sup> 26-A DCMR § 4601.4.

<sup>23</sup> See D.C. Code §§31-2001 through 31-2013. The DC insurance framework conforms with NAIC Model Laws, which have been adopted in substance by state regulators as the framework for monitoring insurers' financial solvency.

In this regard, we noted that the MIEAA Regulations direct the Commissioner to consider the BlueCross/Blue Shield capital requirements in determining whether surplus is excessive.<sup>24</sup>

Based on these severe and potentially catastrophic consequences resulting from GHMSI's surplus falling below a 200% RBC level, we believe it is extremely important that GHMSI's surplus remain above a 200% RBC level. In order to provide for a very high confidence level that GHMSI will not fall below this level, we agree with Milliman's selection of a 98% confidence level for GHMSI's surplus to remain above a 200% RBC level. Based on our discussions with Appleaseed and ARM staff, both parties also appear to agree with a 98% confidence level relative to the 200% RBC threshold. In our view, a 98% confidence level provides a very high level of assurance that the model produces a surplus requirement (translated into a minimum RBC level) that allows GHMSI's surplus to remain above the 200% RBC level.

## **2. 85% Confidence Level Relative to a 375% RBC Threshold**

We next considered other RBC and confidence levels that are appropriate for use in the Milliman model for purposes of analyzing whether GHMSI's surplus is inconsistent with GHMSI's community health reinvestment obligations and is unreasonably large.<sup>25</sup>

Another RBC trigger at which there are adverse consequences for BCBS insurers such as GHMSI is at the 375% RBC level. At the 375% RBC level, GHMSI would be subject to monitoring by the BCBSA (the BCBSA Early Warning Level), which includes financial management oversight and special reporting requirements. To satisfy these requirements, GHMSI would be required to submit an action plan for improving its surplus position to the Plan Performance and Financial Standards Committee ("PPFSC") of the BCBSA, as well as undergo scrutiny by the PPFSC.

In its analysis, Milliman determined that it is "of utmost importance" that GHMSI's surplus remain above the 375% RBC level. Accordingly, in its modeling, Milliman selected between a 90% to 95% confidence level relative to the 375% RBC threshold.

Milliman indicated that:

The initiation of this BCBSA monitoring and oversight carries implications regarding the company's image in the marketplace. Certain disclosure requirements may be enforced, requiring notifications to providers, accounts and direct pay subscribers, with the risk of a loss of confidence in the Plan's financial health. An affected Plan is

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<sup>24</sup> 26-A DCMR § 4601.4.

<sup>25</sup> Because of the manner in which the Milliman modeling methodology operates, it is possible that the minimum amount of surplus necessary to maintain a 200% RBC level at a 98% confidence level might be *less than* the surplus necessary to maintain a different RBC level at a different confidence level. For example, the amount of surplus necessary to maintain a 300% RBC level at a 70% confidence level might be *more than* the amount necessary to maintain our already selected 200% RBC level at a 98% confidence level. In order to determine the minimum amount of surplus that GHMSI should maintain under appropriate testing methodologies, we considered whether any other RBC and confidence levels are appropriate for purposes of determining whether GHMSI's surplus is excessive.

likely to be required to curtail the type of long-term investment that is essential for a viable health plan in today's marketplace, and to limit or suspend its social mission initiatives. Further, innovation in markets and products will be limited or non-existent, as the company is focused on returning to strong financial health. It is therefore **of utmost importance** to the long-term financial viability of a BCBS Plan to maintain surplus above the 375% of RBC-ACL level."<sup>26</sup> (Emphasis added.)

By contrast, during our meetings with and in written materials provided by Appleaseed and ARM representatives, ARM and Appleaseed pointed out that if GHMSI falls below a 375% RBC level, there is no immediate impact to policyholders. In addition, the 375% level is almost twice the 200% RBC level that results in the first type of insurance regulatory action that is required under DC insurance regulations. Accordingly, Appleaseed and ARM proposed that a second appropriate test to use for purposes of determining whether GHMSI's surplus is excessive is the amount needed to maintain a 375% RBC level with a 75% confidence level.

In our analysis, we considered the positions presented by both GHMSI and Milliman staff and by ARM and Appleaseed representatives with respect to the consequences that could result if GHMSI's surplus falls below a 375% RBC level. First, the RBC regulatory framework and standards do not require state insurance regulators to take any action to increase its regulatory scrutiny of a domiciliary insurer whose surplus falls below a 375% RBC level. In fact, as previously indicated, a 375% RBC level is almost twice the Company Action Level under RBC standards.

At the same time, there would be consequences to GHMSI were it to fall below the BCBSA Early Warning Level of 375% RBC. As previously indicated, GHMSI would be required to submit an action plan to the PPFSC of the BCBSA for improving its surplus position and undergo scrutiny by the PPFSC.

As previously indicated, Milliman also expressed concerns that the BCBSA might enforce certain disclosure requirements that would impact confidence in GHMSI's financial health. However, it is our understanding that if a BCBS insurer reaches a 375% RBC level, the fact that the insurer is under heightened scrutiny by the BCBSA remains confidential. In addition, the reporting requirements that would apply to a BCBS insurer also are confidential.<sup>27</sup>

Finally, Milliman expressed concern that if GHMSI's surplus falls below a 375% RBC level, GHMSI might need to limit or curtail its long-term investments, social mission initiatives, or innovations in markets and products. We recognize that for a period of time, GHMSI might need to revise its investments or expenditures in these areas to increase its surplus. However, we also are mindful of the MIEAA requirement that GHMSI engage in the community health reinvestment "to the maximum feasible extent" consistent with financial soundness and efficiency.

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<sup>26</sup> Milliman Report, page 12.

<sup>27</sup> GHMSI indicated that although BCBSA's heightened scrutiny is intended to be confidential, as a practical matter, GHMSI anticipates that competitors would become aware of BCBSA's scrutiny and seek to capitalize on GHMSI's position.

Accordingly, based on the consequences resulting from GHMSI's surplus falling below a 375% RBC level, we believe it is important, but not of the "utmost importance," that GHMSI's surplus remain above a 375% RBC level. In order to provide for a reasonably high confidence level that GHMSI will not fall below this level, we selected an 85% confidence level for GHMSI to remain above a 375% RBC level. This level provides a high level of assurance that the model produces the amount of surplus (translated into a minimum RBC level) needed for GHMSI's surplus to remain above the 375% RBC level.

#### **IV. ANALYSIS OF MILLIMAN ACTUARIAL MODEL**

As previously indicated, the Milliman actuarial model generally consists of three components. First, Milliman uses a stochastic modeling process to calculate potential gain or loss outcomes, taking into account a number of potential events and the probability of the occurrence and relative severity of those events. In order to be appropriately conservative, this stochastic modeling process incorporates and measures the possibility that extremely adverse events could occur, including the possibility that multiple adverse events could occur simultaneously. From the distribution of gain and loss outcomes from the stochastic model, a desired "confidence level" can be determined.

Second, Milliman incorporates the financial results associated with the selected loss outcome into pro-forma financial projections to determine what the impact to GHMSI's surplus would be if the selected loss outcome was in fact to occur. This pro-forma process allows Milliman to determine how much surplus it believes GHMSI needs now to be able to sustain losses corresponding to the selected loss outcome and still remain above specified RBC thresholds at the end of three years based on selected confidence levels.

Finally, because Milliman's assumptions in the stochastic modeling processes only included the impact of those federal health reform measures that had been implemented at the time of Milliman's analysis, Milliman estimated the amount by which the surplus targets produced under its model might need to be increased to take into account the potential impact of health care reform provisions that were not yet in effect at the time of Milliman's analysis. Although Milliman provided an estimate of the potential increase in GHMSI's surplus target range, it characterized its estimate as an indication of the directional nature of the impact of health care exchanges, rather than a precise quantification of their potential financial consequences.

We believe it is appropriate to use the Milliman actuarial model as a way to analyze whether GHMSI is in compliance with the MIEAA standards. During our analysis, however, we identified certain conceptual revisions to the model's loss cycle construction that we believe are appropriate. In addition, we identified certain assumptions used in the loss cycle construction regarding GHMSI's future financial and operational results that we believe are appropriate to adjust.

## A. Conceptual Revisions to Actuarial Model

### 1. Inclusion of Trend Miss and Premium Growth Level Factors Into Modeling Process

As previously indicated, the first step in the Milliman model is to calculate potential gain or loss outcomes using a stochastic modeling process based on a number of events and the probability of the occurrence and relative severity of those events and then to test initial surplus levels that result in the desired “confidence level.” During our review, however, we noted that the model does not incorporate probabilities into the stochastic modeling process relating to two specific factors:

- the projected period of time that GHMSI’s actual trend differs from its anticipated trend before GHMSI makes adjustments to its trend assumption (also known as the “trend miss assumption”<sup>28</sup>); and
- GHMSI’s projected premium growth.

Instead, Milliman constructs the stochastic modeling process using probabilities for all of the other potential events but, for these two assumptions, takes the following steps:

- With respect to trend miss, the Milliman model applies two different trend miss periods through the stochastic modeling process to develop two alternative loss scenarios that then are incorporated into GHMSI’s pro forma financial statements (the financial projection stage of the model). The trend miss periods that are used in the model are a two-year period and a three-year period by which GHMSI misses its anticipated trend.
- With respect to premium growth levels, the Milliman model applies two different premium growth levels. The premium growth levels used in the model are a 7% premium growth level and an 11% premium growth level.

As previously highlighted, Milliman indicated that “an appropriate target for GHMSI’s surplus falls in the range of 1050% to 1300% of RBC-ACL....”<sup>29</sup> The range results from the selection of two different data points:

- a data point calculated using a 7% premium growth level with a two-year trend miss (1050% RBC-ACL, which Milliman characterizes as the low end of the range); and
- a data point calculated using an 11% premium growth level with a three-year trend miss (1300% RBC-ACL, which Milliman characterizes as the high end of the range).

Applying the trend miss periods and premium growth levels outside of the stochastic modeling process is not as inconsequential as it might appear since Milliman uses the data points generated

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<sup>28</sup> Trend generally is defined as the annual change in an insurer’s healthcare costs that results from several different factors, including price inflation, technology advances, utilization changes, and the effect of cost shifting.

<sup>29</sup> Milliman Report, page 5.

to define its range. By using the data point calculated using an 11% premium growth level with a three-year trend miss as the high end of the range, the model in effect gives a 100% probability weighting to this data point. Instead of including appropriate probabilities to the trend miss and premium growth level factors as part of the stochastic testing process, the model in effect calculates the amount of needed surplus using the worst possible outcome for these two factors (an 11% premium growth level and a three-year trend miss).

We had extensive discussions with GHMSI and Milliman staff regarding the manner in which trend miss and premium growth levels were used in the model. GHMSI and Milliman staff provided their reasoning regarding why these two components are not built into the stochastic testing methodology in the same manner as the other assumptions that are used to construct the loss cycle. Based on our analysis, we instead asked Milliman to incorporate the trend miss and premium level components into its model in the following manner:

- With respect to trend miss, we asked Milliman to include the effect of trend miss and related probabilities into the stochastic model's rating adequacy and fluctuation factor.
- With respect to premium growth levels, we asked Milliman to include the probabilities of specific premium growth levels in the modeling process.

The manner in which we asked Milliman to incorporate the trend miss and premium growth level components into its model are further described in Section IV.B.1. and Section IV.B.4., respectively, of this Report.

## **2. Inclusion of Effects of Health Care Reform in Modeling Process**

As previously indicated, the Milliman actuarial model is constructed to generate the amount of surplus GHMSI needs to remain above selected RBC thresholds with a selected degree of confidence. In addition, however, Milliman estimated the amount by which the surplus target "range" produced under its model could increase to take into account the potential impact of health care reform provisions that were not yet in effect at the time of its analysis. Milliman characterized its estimate as an indication of the directional nature of the impact of health care exchanges, rather than a precise quantification of their potential financial consequences.

Based on our analysis of the Milliman model and our extensive discussions with GHMSI, Milliman, Appleaseed, and ARM staff, we believe that the impact of health care reforms that were not in effect at the time of Milliman's analysis should be incorporated directly into appropriate assumptions used in the actuarial model, rather than estimating the potential increase in GHMSI's surplus target range due to these health care reforms outside of the actuarial modeling process. The manner in which we asked Milliman to incorporate the potential impact of health care reform provisions that were not yet in effect at the time of Milliman's analysis is further described in Section IV.B. of this Report.

## **B. Revisions to Assumptions In Modeling Process**

As previously indicated, the first step in the Milliman model is to calculate potential gain or loss outcomes by using a stochastic modeling process based on a number of events and the probability of the occurrence and relative severity of those events. The Milliman stochastic model employs 12 different factors, and for each of these factors, Milliman selects the probability of the occurrence and the severity of certain events related to these factors.

We first analyzed each of the factors and determined that each, in concept, is appropriate for inclusion in the stochastic modeling process. Next, we analyzed the probability of the occurrence and the outcome of certain events related to each of the 12 factors. For nine of the 12 factors, we agreed with Milliman's conclusions. However, for three of the factors, we made modifications to the probability of the occurrence and the outcome of certain events related to these factors, as described for each factor, below.

Finally, as previously indicated, Milliman did not include probabilities relative to GHMSI's projected premium growth in the stochastic modeling process. Rather, Milliman selected a loss outcome and then applied two different premium growth levels. For the reasons described in Section IV.A.1. of the Report, above, we asked Milliman to instead include selected probabilities of premium growth levels in its model, as described below.

### **1. Rating Adequacy and Fluctuation**

In Milliman's model, the rating adequacy and fluctuation factor incorporates a number of different variables with a focus on the effect of changes in medical trends on future premium rate adequacy. Accordingly, modeling choices relating to the rating adequacy and fluctuation factor are crucial in the methodology used to select a loss outcome.

Because of the importance of the rating adequacy and fluctuation factor in the Milliman model, we spent significant time analyzing and discussing this factor's construction with Milliman and GHMSI staff. Based on our analysis and discussions, we made changes to the manner in which the rating adequacy and fluctuation factor is modeled. Of the assumption changes that we made in the Milliman model, the changes made to the rating adequacy and fluctuation factor had the most significant impact on the modeling results.

Based on the rating adequacy and fluctuation modeling changes we made, we asked Milliman to incorporate the following provisions for rating adequacy and fluctuation in the model:

<i>Revised Modeling</i>	
<b>Provision for Rating and Adequacy Fluctuation</b>	
<b>Surplus Change as a % of Non-FEP Insured Premiums</b>	
<b>Probability</b>	<b>Charge</b>
3.0%	30.1%
6.8%	24.1%
7.6%	20.2%
6.7%	17.5%
12.2%	14.6%
27.4%	9.3%
12.2%	3.4%
6.7%	-0.3%
7.6%	-3.6%
6.8%	-9.3%
3.0%	-18.2%

The reasons behind our revisions to the rating adequacy and fluctuation factor are summarized below:

- **Trend Miss Modeling.** In its model, Milliman applied two different trend miss periods (a two-year and three-year trend miss period) as inputs to the stochastic modeling process. We instead incorporated the effects of trend miss into the stochastic modeling process by including the effect of trend miss in the revised provisions for rating and adequacy fluctuation as variables with their own probability distribution.
- **Trend Modeling.** In its model, we found that the method by which Milliman determined historical variability of the secular component of trends assumed that trends are independent from one year to the next. Based on our analysis, we demonstrated that trends occurring between time intervals are correlated to trends from prior periods. Accordingly, we made changes to the trend variability assumption and the manner in which trend is incorporated into the rating adequacy and fluctuation factor.
- **Modeling for Medical Loss Ratio Restrictions.** In its model, Milliman included the effect of medical loss ratio (“MLR”) rebate requirements that were enacted by health care reform in its rating adequacy and fluctuation factor. However, we do not believe including such requirements is necessary, and it complicates the analysis, so we removed the effect of MLR modeling from the rating adequacy and fluctuation factor.

In analyzing this issue, we noted that the MLR rebate requirements would only apply in situations where GHMSI's MLR would exceed certain minimum standards.<sup>30</sup> In other words, the MLR rebate requirements would impact GHMSI's financial position only in situations where GHMSI is experiencing favorable experience. Yet the purpose of the model is to determine surplus amounts necessary for GHMSI to maintain during adverse experience scenarios—not during favorable experience scenarios—so including the effects of MLR rebate requirements in the model would not be appropriate for the limited purposes of the model's use here. We also noted that, even as used by Milliman, the MLR requirements had only a minimal impact on the model's results.

- **Modeling for Increased Regulatory Oversight Over Premium Rates.** In its model, Milliman assumed an increase in the time required for regulators to review premium rate filings as a result of health care reform. In addition, Milliman assumed that regulators would restrict premium rate increases requested in future premium rate filings.

Based on our analysis, we agree that it is appropriate to assume an increase in the time necessary for regulators to review premium rate filings as a result of health care reform. However, we do not believe it is appropriate to assume that regulators will restrict needed premium rate increases requested in premium rate filings, especially in scenarios where GHMSI is in a financially difficult situation (the scenarios that lead to the selection of the Benchmark). Accordingly, we removed the effect of restricted premium rate increases from modeling for the rating adequacy and fluctuation factor.

- **Modeling for Effects of Health Care Reform Not Reflected in Milliman Model.** As previously indicated, the Milliman model only took into account the health care reform requirements that were in effect at the time of its analysis. For health care reform requirements that were not yet in effect, Milliman estimated the amount by which the surplus target range produced under its model could need to be increased to take into account the additional health care reform requirements.

Based on our analysis, we believe it is appropriate to incorporate directly into the stochastic model the anticipated impact of health care reforms, regardless of whether they were yet in effect at the time of Milliman's analysis, rather than estimate the potential effect of health care reforms after the modeling is completed. Accordingly, we included in the rating adequacy and fluctuation factor the following effects of health care reform that were not included in Milliman's modeling: underwriting restrictions; policyholder behavioral changes; and coverage mandates.

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<sup>30</sup> We recognize that in rare situations, the MLR rebate requirements could impact the necessary surplus generated by the model. For example, the model is constructed so that one region or line of business could experience favorable results (resulting in MLR rebate requirements for a certain segment of GHMSI's business), while other regions or lines of business could experience unfavorable results. Because we believe that trend and catastrophic losses between lines of business and regions are closely correlated, however, we believe this scenario is unlikely.

## 2. Catastrophic Events

Catastrophic events are potential events affecting GHMSI's operations that are infrequent, severe, and unpredictable. Examples of such events range from natural disasters (as examples: pandemics, earthquakes, or hurricanes) to human activity (as examples: terrorism, nuclear power accidents, or major litigation).

The Milliman model includes the following assumptions with respect to the impact of catastrophic events:

<i>Milliman Modeling</i> <b>Provision for Impact of Catastrophic Events</b> (As a % of Non-FEP Premiums)			
<b>Probability</b>	<b>Base Provision</b>	<b>Contingent Provision</b>	<b>Total</b>
90%	2.5%	0.0%	2.5%
7.5%	2.5%	2.5%	5.0%
2.5%	2.5%	7.5%	10.0%

By their nature, catastrophes are low frequency, high severity events. Accordingly, an event that is anticipated to occur every year would not be considered a catastrophe. Instead, an annual event would result in recurring, foreseeable expenditures that could be accounted for in an insurance company's operating budget and premium rates.

As indicated above, Milliman's catastrophic event assumptions result in a base provision, or charge, of 2.5% of non-FEP premiums in all of its modeling simulation outcomes. Because of the nature of catastrophic events, we do not believe it is appropriate to include a base charge in all of Milliman's modeling simulations outcomes for such events. Accordingly, we removed this base charge from all of the Milliman modeling simulations.

In addition to the base charge, Milliman assumes an additional contingent provision for 10% of its modeling simulation outcomes (a 2.5% charge in 7.5% of its modeling outcomes and a 7.5% charge in 2.5% of its modeling outcomes). Milliman and GHMSI representatives did not provide actuarial or industry studies or other support for including the contingent provision in its modeling simulation outcomes, and indicated that such support is not available. Nevertheless, they indicated that the contingent provision for catastrophic events is prudent because of the very real threats of catastrophes facing GHMSI.

Based on our analysis, we found that data to support catastrophe modeling for health insurers generally has not been captured or reported. Actuarial and other experts disagree on the appropriate manner to model catastrophic events for health insurers.<sup>31</sup> At the same time, we

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<sup>31</sup> We note that modeling for catastrophes with severe effects for property/casualty insurers are more readily available, which focus on low frequency and high severity events. These models are somewhat helpful for purposes of modeling for health insurers by employing low frequency and high severity outcomes. However, because of the

agree that it is appropriate to include a contingent provision for catastrophic events because of the very real threats of catastrophes facing GHMSI. We also did not find Milliman’s selections of the probability and severity of these events to be unreasonable. As a result, we believe it is appropriate to include this contingent provision in Milliman’s modeling simulation outcomes.

Accordingly, we made the following revisions in Milliman’s modeling for catastrophic events:

<b><i>Revised Modeling</i></b>			
<b>Provision for Impact of Catastrophic Events</b>			
<b>(As a % of Non-FEP Premiums)</b>			
<b>Probability</b>	<b>Base Provision</b>	<b>Contingent Provision</b>	<b>Total</b>
90%	0.0%	0.0%	0.0%
7.5%	0.0%	2.5%	2.5%
2.5%	0.0%	7.5%	7.5%

The changes made to the charges for catastrophic events had a fairly significant impact on the modeling results and were similar to the impact caused by the changes made to unidentified growth and development charges, as described below.

### **3. Provision for Unidentified Growth and Development**

For modeling purposes, Milliman and GHMSI define provision for unidentified growth and development as extraordinary expenditures resulting from unanticipated growth and investment needs, including technology and infrastructure investments, new product development, and responses to legislative changes.<sup>32</sup> The Milliman methodology includes the following assumptions with respect to the impact of provision for unidentified growth and development:

<b><i>Milliman Modeling</i></b>	
<b>Provision for Unidentified Growth and Development</b>	
<b>Surplus Change as a % of Non-FEP Insured Premiums</b>	
<b>Probability</b>	<b>Charge</b>
25.0%	-2.0%
35.0%	-3.0%
25.0%	-4.0%
15.0%	-5.0%

different types of risks and of catastrophes facing health insurers, we do not believe it is appropriate to apply a property/casualty insurer model for catastrophic events to a health insurer.

<sup>32</sup> As described further in this Section IV.B.3., Milliman’s provision for unidentified growth and development is intended to encompass the impact of capital investments that produce non-admitted assets, as well as growth and development expenditures that exceed budgeted amounts that cannot be included in GHMSI’s premium rate structure to recoup the costs of such expenditures. We consider Milliman’s use of the term “*unidentified* growth and development” to be a misnomer since we understand that at least a portion of the capital investments that produce non-admitted assets are known at the time GHMSI develops its rates and produces its financial forecasts. In order to remain consistent with Milliman’s terminology, however, we have continued to refer to these assumptions as a provision for unidentified growth and development.

Accordingly, Milliman's unidentified growth and development assumptions result in a base provision, or charge, of 2% of non-FEP premiums in **all** of its modeling simulation outcomes, with charges ranging from 2% to 5% of non-FEP premiums.

In support of the model's unidentified growth and development assumptions, Milliman and GHMSI indicated that the model is intended to address two separate phenomena that affect GHMSI's unidentified growth and development charges:

- **Effect of Increases in Non-Admitted Assets.** Milliman and GHMSI indicated that in order to support its operations, GHMSI is required to make expenditures that cannot be treated as admitted assets in accordance with statutory accounting principles. Accordingly, these expenditures must be treated as non-admitted assets for financial reporting purposes. Because non-admitted assets cannot be included in an insurer's total assets for purposes of determining the insurer's financial condition, increases in non-admitted assets result in a direct charge to an insurer's surplus position.

Further, Milliman and GHMSI have indicated that for several years, it has been necessary for GHMSI to significantly increase expenditures that result in non-admitted assets, including expenditures for electronic and data processing ("EDP") needs; care management programs; and related infrastructure improvements. Between 1998 and 2012, the annual growth in GHMSI's non-admitted assets averaged 20%.<sup>33</sup> GHMSI indicated that it anticipates additional expenditures will be necessary in future years that might not yet be anticipated as a result of health care reform and continuing changes in technology and infrastructure needs.

- **Unexpected Growth and Development Costs.** Further, Milliman and GHMSI indicated that although GHMSI takes into account anticipated growth and development expenditures in its budgeting process and in developing its premium rates, GHMSI often must incur unexpected growth and development costs that cannot be immediately included in its premium rate structure to recoup the costs of such charges.

In order to assist in determining the provision for unidentified growth and development to include in its model, Milliman analyzed the change in GHMSI's non-admitted assets as a percentage of non-FEP premium for three-year rolling time periods.<sup>34</sup> By taking into account these values, Milliman then made judgmental selections of the unidentified provision for growth and development and the probabilities for such provision to include in its model.

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<sup>33</sup> For purposes of our analysis, GHMSI's non-admitted assets related to investments, taxes and pension plan expenditures are not included.

<sup>34</sup> For purposes of Milliman's analysis, GHMSI's non-admitted assets related to investments, taxes and pension plan expenditures are not included. In addition, Milliman used three-year rolling time periods in its analysis to correspond to the three-year time periods on which its modeling methodology is based (the three-year periods beginning in 1998 through 2009).

Based on our analysis, we believe that it is appropriate to recognize the effect of a provision for unidentified growth and development in the model. Although we believe that GHMSI should be able to anticipate significant portions of the provision for growth and development based on its recent history, we recognize the rapid changes occurring in the health care market due to health care reform and unanticipated technology and infrastructure needs.

At the same time, instead of looking solely to GHMSI's recent history to anticipate future increases in its provision for unidentified growth and development, we took into account the recent experience of the health insurance industry as a whole with respect to its growth in non-admitted assets. As previously indicated, the annual growth in GHMSI's non-admitted assets between 1998 and 2012 averaged 20%. In comparison, the annual growth in the health insurance industry's total non-admitted assets between 2003 and 2012 averaged 6.5%, and the annual growth in the industry's non-admitted assets attributable to EDP expenditures during the same time period averaged 9%.

Because we believe that the industry's experience with respect to growth in non-admitted assets attributable to EDP expenditures is relevant to what GHMSI will experience in the future, we applied the historical 9% industry average for annual growth in non-admitted assets attributable to EDP expenditures to GHMSI's 2011 expenditures for non-admitted assets. Based on this analysis, we selected the potential provision for unidentified growth and development to include in the model.

For these reasons, we made the following revisions in Milliman's model for a provision for unidentified growth and development:

<i>Revised Modeling</i>	
<b>Provision for Unidentified Growth and Development Surplus Change as a % of Non-FEP Insured Premiums</b>	
<b>Probability</b>	<b>Charge</b>
15.0%	0.0%
35.0%	-1.0%
25.0%	-2.0%
15.0%	-3.0%
7.5%	-4.0%
2.5%	-5.0%

The changes made to the provisions for unidentified growth and development had a fairly significant impact on the modeling results and were similar to the impact caused by the changes made to charges for catastrophic events, as described above.

#### **4. Premium Growth Levels**

The amount and type of premium projected to be written by a health insurer are key determinants of the insurer's future surplus needs. Under the RBC formula that applies to health business, charges are applied that are intended to measure the underwriting risk of each type of health business projected to be written by the insurer (for example, comprehensive medical and hospital

coverage vs. FEP business). Accordingly, it is important to determine projections of the amount of health business projected to be written by an insurer as accurately as possible.

As previously indicated, Milliman did not use probabilities relative to premium growth levels in its stochastic modeling process. Instead, after completing the stochastic modeling process, Milliman applied two different premium growth levels: a 7% premium growth level and an 11% premium growth level. Based on our extensive analysis and discussions with GHMSI and Milliman staff, we instead asked Milliman to include selected probabilities of premium growth levels in model.

**a. Historical Premium Growth Levels.** In order to determine appropriate premium growth level assumptions to include in the model, we recognize that it is important to take into account GHMSI's historical premium growth experience. When reviewing an insurer's historical premium growth experience, it also is important to recognize the effect of unusual business activity that an insurer experienced in the past that affected its premium growth levels.

During our discussions with GHMSI, Milliman, Appleseed, and ARM staff, we identified fairly significant differences of opinion regarding the appropriate levels of GHMSI's historical premium growth to use as a reference point for GHMSI's future premium growth projections. Attached as **Appendix A** is our analysis of GHMSI's historical premium growth levels, as used for this purpose.

After analyzing GHMSI's historical premium growth experience, we considered our findings in determining appropriate premium growth projection assumptions to include in the model. Although we did not use the historical premium growth experience as an exact starting point in determining appropriate model assumptions, we took GHMSI's historical premium growth experience into account in estimating future premium growth levels.

**b. Future Premium Growth Levels.** As indicated above, GHMSI's historical premium growth serves as a reference point for projecting its future premium growth. However, several factors will influence GHMSI's future premium growth that need to be taken into account in determining appropriate future premium growth assumptions. The primary factors to be considered that could influence GHMSI's future premium growth levels are the following:

- **Enrollment Changes, Including Health Care Reform Effects.** As for any health insurer, the number of enrollees who receive coverage under specific GHMSI products typically fluctuates over time. In addition to these typical enrollment fluctuations, we also considered the impact of recent health care reforms on GHMSI's enrollment. As previously indicated, the Milliman model only took into account the health care reform requirements that were in effect at the time of its analysis. These reforms did not include the effect of the individual health coverage mandate and health care exchanges that have been introduced by health care reform.

As part of our analysis, we considered the anticipated changes in enrollment in GHMSI's individual products resulting from health care reform. In projecting changes in enrollment in GHMSI's individual products, we took into account the

current size of enrollment in GHMSI's individual products and available research regarding estimated increases in the individual insured market resulting from health care reform.

- **Distinction Between FEP and Non-FEP Premium.** As previously indicated, the Milliman model applied two different premium growth levels: a 7% premium growth level and an 11% premium growth level. In addition to applying these premium growth levels without probability distributions, the Milliman model also did not differentiate growth rates between FEP and non-FEP business written by GHMSI.

As previously indicated, GHMSI's participation in the FEP constitutes a relatively large portion of GHMSI's business. Although the FEP is an insured program, the program is constructed in a manner that significantly reduces GHMSI's short-term underwriting risk with respect to its FEP participation. In addition, the NAIC RBC formula that assigns risk charges to various types of health business applies a significantly lower risk charge to FEP business.

Further, we considered the anticipated changes in enrollment in GHMSI's various types of individual products resulting from health care reform. Due to the individual health coverage mandate and health care exchanges, we anticipate greater potential for growth in GHMSI's non-FEP premium than in its FEP business.

For these reasons, we asked Milliman to distinguish between FEP premium and non-FEP premium in its premium growth level assumptions to be used in its stochastic modeling process.

- **Rising Health Care Costs.** Due primarily to medical inflation, the cost of health insurance on a per member basis has steadily increased over several years. Insurers need to plan for premium rate increases to keep pace with these rising health care costs. We considered these rising health care costs in determining GHMSI's future premium growth levels.
- **Policyholder Cost-Sharing Decisions.** Due to the rising costs of health insurance, policyholders in recent years made health care purchasing decisions that increased their share of health care costs, while reducing health insurance premium levels. As an example, policyholders chose health insurance products with reduced coverage levels in exchange for lower premiums or high deductible plans with lower premium costs.

Because of these recent shifts in policyholder behavior, GHMSI indicated that it has experienced recent periods of reduced premium growth. At the same time, GHMSI indicated that it believes that policyholders have reached the point where cost-sharing no longer will drive their health care purchasing decisions. As a result, GHMSI anticipates its premium growth levels will return to a more typical growth pattern than GHMSI recently experienced. We took these considerations into account in determining GHMSI's future premium growth levels.

Based on our analysis, the following are the premium growth level assumptions we asked Milliman to include in its model:

<b><i>Revised Modeling</i></b>			
<b>Annual Premium Growth Rates</b>			
<b>Non-FEP Business</b>		<b>FEP Business</b>	
<b>Growth Rate</b>	<b>Probability</b>	<b>Growth Rate</b>	<b>Probability</b>
9.1%	25.0%	6.5%	25.0%
12.4%	50.0%	7.5%	50.0%
16.1%	25.0%	8.4%	25.0%

Despite asking Milliman to change the manner in which it includes premium growth assumptions in its model, the changes made to the model to take into account premium growth assumptions had only a modest impact on the modeling results.

### **C. Conclusions from Analysis of Milliman Actuarial Model**

After making the requested revisions to its actuarial model described in Sections IV.A. and B. of this Report, Milliman calculated the amount of surplus necessary for GHMSI to remain above the identified thresholds. The results of its calculations are:

- In order to maintain a 200% RBC level at a 98% confidence level, GHMSI would need to have current surplus at a 958% RBC level; and
- In order to maintain a 375% RBC level at an 85% confidence level, GHMSI would need to have current surplus at a 746% RBC level.

## **V. APPLESEED CONCERNS WITH GHMSI'S SURPLUS POSITION AND MILLIMAN ACTUARIAL MODEL**

As previously indicated, we reviewed, analyzed, and took into account several written materials regarding GHMSI's surplus position and the Milliman actuarial model that were provided by Appleseed and ARM on Appleseed's behalf. In addition, we met with Appleseed and ARM representatives to discuss their comments regarding GHMSI's surplus position and the Milliman's actuarial model. The following discusses our understanding and analysis of the concerns raised by Appleseed and ARM regarding GHMSI's surplus position and the Milliman actuarial model, including how we took those comments into account in our analysis.

### **A. Incorporation of MIEAA Standards Into Analysis of Actuarial Model**

A primary concern raised by Appleseed in written materials and in our discussions related to the standards for review of GHMSI's surplus position, as set forth in MIEAA and as described in Section I. of this Report. In other words, Appleseed emphasized that our analysis and recommendations should be grounded in and tied to the MIEAA standards.

Appleseed argues that the MIEAA standards should be applied to maximize the amount of surplus available to address community healthcare needs, not to maximize the amount of surplus held by GHMSI. Similarly, Appleseed indicates that assumptions used in the Milliman actuarial model that will only bring about marginal reductions in GHMSI's risks are not consistent with MIEAA's mandate that GHMSI engage in community health reinvestment to the maximum extent consistent with financial soundness and efficiency.

We considered Appleseed's comments and input regarding this issue and, as described in Section III.A. of this Report, we generally agree with them. We recognize that the D.C. Court of Appeals clearly indicated in the Appeals Court Decision that two different determinations must be made and must be made in tandem:

- Whether GHMSI has engaged in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency; *and*
- Whether GHMSI's surplus exceeds appropriate RBC requirements and is unreasonably large and inconsistent with GHMSI's community health reinvestment mandate.

We believe the tests we used to select the Benchmark—1) a 200% RBC threshold at a 98% confidence level, and 2) a 375% RBC threshold at an 85% confidence level—strike the proper balance between the various aspects of the MIEAA standard's requirements. After extensively analyzing Milliman's model (including reviewing the appropriate confidence levels and RBC levels to be selected for use in the model) and making various adjustments to it, we believe the model, as adjusted, allows for a determination of the amount of surplus necessary so that GHMSI both operates consistently with financial soundness and efficiency and satisfies its community health reinvestment obligation.

#### **B. Use of Historical Underwriting Cycles and Net Income Approach In Milliman Model**

In various correspondence to the DISB and R&A, Appleseed and ARM staff indicated that its understanding is that the Milliman model assumes and uses as a basis for the model the existence of an underwriting cycle. They indicate that the model assumes a cycle in which several years of underwriting profitability will inevitably be followed by several years of losses. Based on its experience and analysis, ARM indicated that it believes this type of underwriting cycle no longer exists and is inappropriate to use as a basis of the Milliman model.

In addition, Appleseed and ARM staff indicated that their understanding is that the Milliman model focuses on underwriting results, rather than modeling GHMSI's net income results. In other words, Appleseed and ARM staff understood that the model only relies on underwriting gains or losses for purposes of predicting GHMSI's surplus changes.

We generally agree with Appleseed's and ARM's comments regarding the inappropriateness of incorporating an underwriting cycle into the model. During our extensive review of the Milliman model, we determined that no such underwriting cycle was used in the model. Although Milliman included historical information regarding underwriting cycles in its materials for informational purposes, such information did not impact the selection of the Benchmark.

In addition, we generally agree with Appleseed’s and ARM’s view that the focus of the model should be on GHMSI’s net income results, rather than on underwriting results. During our extensive review of the Milliman model, we determined that the results were reached on a net income basis, rather than on an underwriting by line basis.

### **C. Milliman Approach to Effects of Affordable Care Act in Model**

As described in Section II of this Report, Milliman stated in the Milliman Report that its analysis only took into account the impact of federal health care reform provisions in effect as of the date of its analysis and did not directly incorporate into its analysis the potential impact of health care reform provisions that were not yet in effect. For health care reform requirements not yet in effect, Milliman estimated the amount by which the surplus target “range” produced under its model could need to be increased to take into account the additional health care reform requirements.

Appleseed and ARM representatives have argued that it is not appropriate to include an estimate of the potential effect on GHMSI’s surplus of federal health care reform provisions without an explanation of the methodology used to construct the estimated impact. In addition, they argue that several of the effects of health care reform could result in benefits to GHMSI, including GHMSI’s name and brand recognition; available risk mitigation programs; GHMSI’s existing facility and physician discounts; and GHMSI’s federal income tax advantage, as compared to for-profit insurers.

As previously indicated, we believe that the impact of health care reforms that were not in effect at the time of Milliman’s analysis should be incorporated directly into appropriate assumptions used in the model, rather than estimating the potential increase in surplus needed by GHMSI due to these health care reforms. Accordingly, we incorporated the impact of these health care reforms into the model by employing the revised assumptions that we asked GHMSI to use in its stochastic testing methodology.

As part of our analysis of the appropriate assumptions to be used, we took into account both the positive and negative impacts to GHMSI’s operations arising from health care reform. The manner in which we determined these assumptions is described in Section IV.B. of this Report.

### **D. Analysis of Assumptions Used in Model**

Appleseed and ARM have questioned certain assumptions used in the Milliman stochastic modeling process. Based on the written materials provided by Appleseed and ARM and subsequent discussions with their staff, the following is our understanding of the assumptions that Appleseed and ARM have questioned, the rationale for their questions, and our analysis and findings with respect to each assumption.

## **1. Growth in Premium**

Appleseed and ARM argue that the assumptions regarding GHMSI's premium growth are too high.

Based on our analysis, we made adjustments to Milliman's premium growth assumptions, as described in Section IV.B.4. of this Report.

## **2. Unidentified Growth and Development Charges**

As described in Section IV.B.3. of this Report, Milliman's actuarial model includes a charge of between 2% and 5% of GHMSI's non-FEP premium<sup>35</sup> in each of the modeling scenarios. Appleseed and ARM argue that it is inappropriate to include a charge for unidentified growth and development in each modeling scenario and that the size of the charges used in various modeling scenarios are inappropriate.

Based on our analysis, we concluded that it is inappropriate to include a charge for unidentified growth and development in each modeling scenario and that the size of the charges used in various modeling scenarios are inappropriate. Accordingly, we made adjustments to Milliman's unidentified growth and development charges, as described in Section IV.B.3. of this Report.

## **3. Catastrophic Event Charges**

As described in Section IV.B.2. of this Report, Milliman's actuarial model includes a charge of 2.5% of GHMSI's non-FEP premium in each of the modeling scenarios. In addition, Milliman assumed an additional contingent provision for specified percentages of its modeling simulation outcomes. Appleseed and ARM argue that it is inappropriate to include a charge for catastrophic events in each modeling scenario and that the size of the charges used in various modeling scenarios are inappropriate.

Based on our analysis, we concluded that it is inappropriate to include a charge of 2.5% of GHMSI's non-FEP premium in each of the modeling scenarios. However, we concluded that the contingent provision of specified percentages included by Milliman for specified percentages of its modeling simulation outcomes are appropriate. Accordingly, we made adjustments to Milliman's catastrophic event charges, as described in Section IV.B.2, of this Report.

## **4. Selected Confidence Levels**

As indicated in Section II of this Report, Milliman stated in the Milliman Report that the confidence levels that it selected to ensure that GHMSI's surplus remains above specified RBC target levels were: 1) a 98% confidence level that GHMSI's surplus will remain above a 200%

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<sup>35</sup> A portion of GHMSI's premium is attributable to its participation in the BCBSA Federal Employee Program ("FEP"). GHMSI's non-FEP premium consists of premium revenue that is not attributable to FEB participation.

RBC level; and 2) a 90% to 95% confidence level GHMSI's surplus will remain above a 375% RBC target level.<sup>36</sup>

Appleseed and ARM argue that the appropriate confidence levels to be used to ensure that GHMSI's surplus remains above specified RBC target levels are: 1) a 98% confidence level that GHMSI's surplus will remain above a 200% RBC level; and 2) a 75% confidence level GHMSI's surplus will remain above a 375% RBC target level.

Based on our analysis, we concluded that the appropriate confidence levels to be used to measure GHMSI's surplus relative to the MIEAA standards are: 1) a 98% confidence level that GHMSI's surplus will remain above a 200% RBC threshold; and 2) an 85% confidence level that GHMSI's surplus will remain above a 375% RBC threshold.

## **VI. VALIDATION OF MILLIMAN MODEL AND ASSUMPTIONS**

As part of our examination, we performed various tests to validate the general accuracy and completeness of the Milliman model and assumptions, as revised to take into account our findings and conclusions. The validation tests included tests both as to specific assumptions and as to the model as a whole. Those tests enabled us to conclude, as referenced elsewhere in this Report, that it is appropriate to use the Milliman model as a way of analyzing GHMSI's surplus position and that key assumptions incorporated into the model, as adjusted, are appropriate.

## **VII. COMMUNITY HEALTH REINVESTMENT EXPENDITURES**

MIEAA provides that:

A corporation shall engage in community health reinvestment to the maximum feasible extent consistent with financial soundness and efficiency.<sup>37</sup>

MIEAA defines community health reinvestment expenditures to mean:

expenditures that promote and safeguard the public health or that benefit current or future subscribers, including premium rate reductions.<sup>38</sup>

As part of our examination, the DISB asked us to analyze GHMSI's community health reinvestment expenditures during 2011 and 2012; its projected expenditures during 2013; and its anticipated expenditures for 2014 and future years. Accordingly, we asked GHMSI to provide us

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<sup>36</sup> As previously indicated, the amount of surplus Milliman determined GHMSI would need to ensure it will remain above a 200% RBC target level with a 98% confidence level is based on: a) a 7% premium growth level with a two-year trend miss, resulting in a surplus target of 1050% of RBC; and b) an 11% premium growth level with a three-year trend miss, resulting in a surplus target of 1300% of RBC. Milliman also calculated the surplus necessary for GHMSI to remain at a 375% RBC target level with a 90% to 95% confidence level and with varying premium growth and trend miss assumptions.

<sup>37</sup> D.C. Code § 31-3505.01.

<sup>38</sup> D.C. Code § 31-3505(1A).

with information regarding its community health reinvestment expenditures during time periods that allowed us to perform the requested analysis.

It is important to note that under MIEAA standards, the DISB is not required to determine the appropriateness of GHMSI's community health reinvestment expenditures (in other words, whether the type of expenditures that GHMSI chooses to make appropriately promote or safeguard the public health or benefit current or future subscribers). Instead, GHMSI's board of trustees and management have discretion to choose the manner in which GHMSI supports the DC community through its community health reinvestment expenditures. Similarly, our task was to analyze the expenditures that GHMSI indicates constitute its community health reinvestment expenditures without judging the appropriateness of those expenditures.

GHMSI indicated that it considers its community health reinvestment expenditures to fall into the following five categories:

- **Corporate Giving.** GHMSI indicated that its corporate giving falls into the following four types:
  - Catalytic giving – support for programs and other initiatives that stimulate productive change and improvements in health care systems over the long term (i.e., Mary's Center Patient Centered Medical Chronic Care Initiative);
  - Targeted health related giving through others – support to organizations that provide direct care or related services for the underserved (i.e., Community of Hope South Capital Health and Resource Center);
  - Programmatic initiatives – program support that targets a specific population or addresses a major health care issue with specific measurements for success (i.e., District of Columbia Department of Health Maternal and Child Case Management Program); and
  - Corporate memberships and community sponsorships – corporate sponsorships and memberships with business or civic organizations to build strong relationships and develop long-lasting partnerships with the community (i.e., DC Chamber of Commerce (a GHMSI corporate membership) and Georgetown Pediatrics Gala (a GHMSI community sponsorship)).

To be considered a community health reinvestment expenditure, the expenditure should promote and safeguard the public health or benefit current or future subscribers. It seems clear that three of GHMSI's types of corporate giving serve these purposes.<sup>39</sup> However, it is not as clear that corporate memberships and community sponsorships promote the public health or benefit current or future subscribers. Instead, these expenditures arguably enhance GHMSI's image in the community, thus supporting GHMSI's marketing efforts and providing GHMSI with public recognition.

At the same time, these expenditures do appear to support the DC business community and organizations that provide needed health care resources to the DC community. By providing that support, GHMSI is benefiting current or future subscribers who reside in the DC area and receive

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<sup>39</sup> These three types are catalytic giving, targeted health care giving through others, and programmatic initiatives.

support from the DC business community and support organizations. Accordingly, we treated GHMSI's corporate memberships and community sponsorships as community health reinvestment expenditures.

- **Open Enrollment Subsidies.** As a result of health care reform, the District of Columbia will no longer have in place an open enrollment program as of January 1, 2014. Accordingly, GHMSI will no longer provide open enrollment subsidies in 2014 and later years that can be considered community health reinvestment expenditures.
- **DC HealthCare Alliance Program Funding.** We noted that since 2009, GHMSI has been required to provide funding of \$5 million each year for the DC HealthCare Alliance program for at least five years, subject to extension of GHMSI's funding upon the mutual written agreement of the DC Council and GHMSI.<sup>40</sup> At this time, we are not aware of any extension of GHMSI's funding obligation. Accordingly, it appears that GHMSI's expenditures for 2015 and future years will not include its \$5 million annual funding of the DC HealthCare Alliance program made from 2009 – 2014.
- **Premium Taxes.** In response to our request for community health reinvestment expenditures information, GHMSI provided us with information regarding premium taxes paid to the DISB attributable to insurance business written by GHMSI in the District of Columbia. With respect to premium taxes paid in 2011 and 2012, we also independently verified the premium taxes paid by GHMSI to the District of Columbia.

Based on discussions with the DISB and our analysis of the definition of community health reinvestment expenditures, we do not believe that premium taxes constitute expenditures that promote and safeguard the public health or that benefit current or future subscribers. Accordingly, we do not believe they are community health reinvestment expenditures.

- **Premium Rate Reductions.** In response to our request for community health reinvestment expenditures information, GHMSI provided us with information regarding premium rate reductions it indicates it made in the DC market between 2010 and 2012 that totaled \$27 million.

We recognize that the definition of community health reinvestment expenditures includes premium rate reductions.<sup>41</sup> Based on discussions with the DISB and our understanding of MIEAA's regulatory framework, however, we believe that the inclusion of premium rate reductions in the definition of community health reinvestment expenditures is intended to provide direction towards the manner in which GHMSI could increase expenditures that would benefit current or future subscribers.

Further, although we appreciate GHMSI's efforts to quantify its past premium rate reductions as part of its community health reinvestment expenditures, we believe it is difficult to quantify all of GHMSI's past premium rate reductions as reductions that were intended solely in the interest

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<sup>40</sup>The DC HealthCare Alliance program is a public insurance program that offers healthcare services for low-income DC residents who are uninsured and not eligible for other public health insurance programs, including Medicaid or Medicare.

<sup>41</sup> §D.C. Code § 31-3105(1A).

of increasing such expenditures.<sup>42</sup> In addition, the data used by GHMSI to quantify its premium rate reductions between 2010 and 2012 could be interpreted in different ways, resulting in different premium rate reduction calculations.

Accordingly, although we recognize that GHMSI's community health reinvestment expenditures are intended to include premium rate reductions that benefit current or future subscribers, we have not included GHMSI's quantification of any such reductions in our summary, below.

At the same time, we recognize premium tax payments as an obligation to support the at-large DC community. Accordingly, we have noted the total premium tax payments made by GHMSI in 2011 and 2012 and projected 2013 payments, below.

**2011 GHMSI COMMUNITY REINVESTMENT EXPENDITURES**

Corporate Giving	\$3.4 million
Open Enrollment Subsidies	\$4.5 million
DC HealthCare Alliance	
Program Funding	<u>\$5.0 million</u>
<b>TOTAL 2011 EXPENDITURES</b>	<b>\$12.9 MILLION</b>

**2012 GHMSI COMMUNITY REINVESTMENT EXPENDITURES**

Corporate Giving	\$3.9 million
Open Enrollment Subsidies	\$7.5 million
DC HealthCare Alliance	
Program Funding	<u>\$5.0 million</u>
<b>TOTAL 2012 EXPENDITURES</b>	<b>\$16.4 MILLION</b>

**2013 ESTIMATED GHMSI COMMUNITY REINVESTMENT EXPENDITURES<sup>43</sup>**

Corporate Giving	\$3.4 million
Open Enrollment Subsidies	\$9.6 million
DC HealthCare Alliance	
Program Funding	<u>\$5.0 million</u>
<b>TOTAL 2013 ESTIMATED EXPENDITURES</b>	<b>\$22.1 MILLION</b>

**GHMSI PREMIUM TAX PAYMENTS –DC ONLY**

2011 Premium Taxes	\$9.5 million
2012 Premium Taxes	\$9.4 million
2013 Estimated Premium Taxes	\$9.6 million

<sup>42</sup> For example, premium rate reductions could have been made as a result of pressure to remain competitive in GHMSI's markets.

<sup>43</sup> Estimated 2013 expenditures are based on actual expenditures through 6/30/13 and estimate expenditures from the second half of 2013.

## APPENDIX A

### GHSMI HISTORICAL PREMIUM GROWTH EXPERIENCE

In order to determine appropriate premium growth level assumptions to include in the Milliman actuarial model, we recognize that it is important to take into account GHMSI's historical premium growth experience. During our extensive discussions with GHMSI, Milliman, Appleseed, and ARM staff, we identified fairly significant differences of opinion regarding the appropriate levels of GHMSI's historical premium growth to use in analyzing GHMSI's future premium growth projections. The following summarizes our analysis of GHMSI's historical premium growth experience, as used for this purpose.

For purposes of determining GHMSI's historical premium growth experience, we reviewed GHMSI premium growth from 2002 – 2012. We believe that using 10 years of operational experience gives credible historical experience on which to base GHMSI's potential future premium growth trends.

In addition, in reviewing GHMSI's premium growth during the 10-year period, we took into account the effect of GHMSI's operational history that impacted GHMSI's recent premium growth experience:

- During the last 10 years, GHMSI has been a part owner of CareFirst BlueChoice, Inc. (“CFBC”), an HMO operating in DC, Maryland, and Virginia.<sup>1</sup> In calculating GHMSI's historical premium growth and in order to make an “apples to apples” comparison, we believe it is appropriate to take into account a portion of premium written by CFBC during the same time period (in a similar manner that Milliman took CFBC's premium growth into account in its premium growth assumptions for GHMSI).

Because of GHMSI's ultimate ownership of CFBC (an affiliate insurer), the RBC calculations for GHMSI require that CFBC's premium growth be taken into account (similar to the manner in which GHMSI's premium growth affects its RBC calculations). Accordingly, it is appropriate to recognize the effect of premium growth for both GHSMI and CFBC on GHMSI's RBC calculations.

- Currently, GHMSI indirectly owns 50% of CFBC. Prior to December 31, 2010, GHMSI was the direct owner of 40% of CFBC. For purposes of consistency in measuring premium growth over the 10-year period, the GHMSI percentage of ownership of CFBC is assumed to be 50% for the entire 10-year period.

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<sup>1</sup> Prior to December 31, 2010, GHMSI directly owned a portion of CFBC. Effective December 31, 2010, GHMSI became an indirect owner of CFBC through GHMSI's ownership of a portion of CareFirst Holdings, Inc., a holding company that is the sole owner of CFBC.

- In 2008, GHMSI entered into a reinsurance agreement with CareFirst of Maryland, Inc. (“CFMI”), an affiliate insurer, that resulted in a one-time change in the scope of the covered population that produces a discontinuity in reported premium values. As a result of the agreement, the premium growth between 2007 and 2008 results in an unusually low percentage change, as compared to the growth rates for the entire 10-year period. Accordingly, we did not take into account the 2008 premium growth change in our analysis.

After taking into account the effect of these operational changes, the following summarizes GHMSI’s premium growth for 2002-2012.

### **GHMSI Premium Growth Summary**

**2003-2007**

(In thousands)

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>GHMSI Earned Premium</b>	\$1,891.19	\$2,032.74	\$2,257.44	\$2,457.59	\$2,828.48
<b>CFBC &amp; Affiliates Earned Premium</b>	\$878.77	\$1,062.22	\$1,303.14	\$1,421.78	\$1,591.32
<b>Assumed Ownership</b>	50%	50%	50%	50%	50%
<b>GHMSI &amp; Affiliates Earned Premium</b>	\$2,330.58	\$2,563.85	\$2,909.01	\$3,168.46	\$3,624.14
<b>Annual Percentage Change</b>	12.4%	10.0%	13.5%	8.9%	14.4%

**GHMSI Premium Growth Summary**  
**2008-2012**  
(In thousands)

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>GHMSI Earned Premium</b>	\$2,757.51	\$2,890.87	\$2,917.43	\$3,059.42	\$3,165.92
<b>CFBC &amp; Affiliates Earned Premium</b>	\$1,747.82	\$1,878.52	\$1,992.68	\$2,006.71	\$2,163.65
<b>Assumed Ownership</b>	50%	50%	50%	50%	50%
<b>GHMSI &amp; Affiliates Earned Premium</b>	\$3,631.42	\$3,830.13	\$3,913.77	\$4,062.77	\$4,247.75
<b>Annual Percentage Change</b>	0.2%	5.5%	2.2%	3.8%	4.6%

**GHMSI Annual Premium Percentage Changes**

<b>% Annual Premium Change</b>	
Average All Years	7.5%
Average All Years Except 2008	8.4%
Average Last Four Years	4.0%

After analyzing GHMSI's historical premium growth experience, we considered our findings in determining appropriate premium growth level assumptions to include in the model. Although we did not use the historical premium growth experience as an exact starting point in determining appropriate model assumptions, we took GHMSI's historical premium growth experience into account in determining future premium growth levels.