Filing at a Glance

Company:	John Hancock Life Insurance Company (USA)
Product Name:	VA 2016 GLTC In force Rate Filing - Pre-RS filing
State:	Virginia
TOI:	LTC03G Group Long Term Care
Sub-TOI:	LTC03G.001 Qualified
Filing Type:	Rate
Date Submitted:	03/09/2017
SERFF Tr Num:	MULF-130882991
SERFF Status:	Closed-Approved
State Tr Num:	MULF-130882991
State Status:	Approved
Co Tr Num:	2016 GLTC IN FORCE RATE FILING - PRE-RS FILING
Implementation Date Requested:	On Approval
Author(s):	Michelle Fluet, Carol Folsom, Marie Roche, Joanne Witham
Reviewer(s):	Bill Dismore (primary)
Disposition Date:	07/03/2019
Disposition Status:	Approved
Implementation Date:	

General Information

Project Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Status of Filing in Domicile: Pending
Project Number:
Date Approved in Domicile:
Requested Filing Mode: Review & Approval
Domicile Status Comments:
Explanation for Combination/Other:
Market Type: Group
Submission Type: New Submission
Group Market Size: Small and Large
Group Market Type: Employer, Association, Trust
Overall Rate Impact: 14.1%
Filing Status Changed: 07/03/2019
State Status Changed: 07/03/2019
Deemer Date: 03/03/2019
Created By: Michelle Fluet
Submitted By: Joanne Witham
Corresponding Filing Tracking Number: MULF-130883116
State TOI: LTC03G Group Long Term Care
State Sub-TOI: LTC03G.001 Qualified

Filing Description:
Dear Commissioner:

John Hancock is requesting premium rate increases for the policy forms listed below. These rate increases are in response to the results of our most recently completed experience studies, refinements to our modeling approach and correction of certain projections and assumptions in our prior 2010 rate increase filing. A more thorough discussion of each of these elements is found in Appendix 1. In addition, Appendix 1 also addresses how John Hancock assures there is no cross subsidization between states and that past losses are not being recouped.

As a result of the factors noted above and emerging experience since our last filing, we are requesting a premium rate increase on the policy series listed below and are enclosing the actuarial memos and rates for your review and acceptance.

John Hancock Policy SeriesApproval DatesYears Policy Series Available for SaleRate Increase
GPB-COV-0002, et al11/7/19971998-20128.4%
P-FACE(2002-2), et al.10/28/2002 & 2/3/20122003-201217.1%

Alternative Options For Insureds
Insureds affected by the premium increase will receive a notice 90 days prior to the policy anniversary. We plan to offer to affected insureds that have purchased the automatic compound inflation feature an opportunity to keep their premium rate neutral by reducing their inflation on a prospective basis (they will keep any coverage that has already inflated). Below, we have included a table that illustrates the reduced automatic compound inflation percentage by policy series that we will offer to allow affected insureds to remain premium rate neutral. There are two tables – one for those currently receiving 5% inflation increase per year, and another table for those who have previously reduced their inflation rate to avoid the prior rate increase.

For insureds that are currently receiving a 5% inflation benefit:

John Hancock Policy SeriesNew Lower Automatic Compound Percentage*
P-FACE(2002-2), et al. 4.4%

For insureds that have previously reduced their inflation rate in order to avoid a rate increase:

John Hancock Policy SeriesCurrent Automatic Compound Percentage*New Lower Automatic Compound Percentage*
P-FACE(2002-2), et al.
•Insureds with less than 10 year Lifetime Maximum Benefit
•Insureds with 10 year or greater Lifetime Maximum Benefit
3.3%

2.3%
2.5%

1.5%

*Please note these amounts were determined to be actuarially equivalent to the requested rate increases in aggregate.

We will also allow affected insureds to reduce their benefit period, reduce their daily benefit amount, and/or drop optional benefit features.

In addition, if the requested increase is approved in full, we will make available the 2014 NAIC Model Contingent Nonforfeiture Benefit for all affected certificateholders, even if it is not otherwise required in your State.

Policy amendment forms, Certificate amendment forms and policyholder communications will be submitted to your department in separate SERFF filing # MULF-130883116 for review.

Subject to your acceptance, the new premium rates will be applied to all group policies that have been issued in your state. If coverage is issued in your state under group policies issued in another state, then the situs state laws and regulations will govern the premium rates for that coverage. Rates will be applied to group policies issued in your state as soon as practical based upon administrative and case feasibility following acceptance of this submission by your Department.

Please note the SERFF submission was created based on the department's request on similar prior submissions.

The following items are included in this submission:
•the submission letter
•Appendix 1.
•all actuarial material.
•all required certifications.

Please do not hesitate to contact us regarding this submission. We will be happy to meet with the Department either in person or via conference call at a time of your convenience.

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Company and Contact

Filing Contact Information

Carol Folsom, Contract Consultant
200 Berkeley Street
Boston, MA 02117

cfolsom@jhancock.com
888-877-6075 [Phone]
617-572-0399 [FAX]

Filing Company Information

John Hancock Life Insurance Company (USA)
200 Berkeley Street
Boston, MA 02176
(617) 572-6000 ext. [Phone]

CoCode: 65838
Group Code: 904
Group Name:
FEIN Number: 01-0233346

State of Domicile: Michigan
Company Type:
State ID Number:

Filing Fees

Fee Required? No
Retaliatory? No
Fee Explanation:

Correspondence Summary

Dispositions

Status	Created By	Created On	Date Submitted
Approved	Bill Dismore	07/03/2019	07/03/2019

Objection Letters and Response Letters

Objection Letters

Status	Created By	Created On	Date Submitted
Info has been requested from company	Bill Dismore	07/02/2019	07/02/2019
Info has been requested from company	Bill Dismore	05/01/2019	05/01/2019
Info has been requested from company	Bill Dismore	02/12/2019	02/12/2019
Info has been requested from company	Bill Dismore	02/11/2019	02/11/2019
Info has been requested from company	Bill Dismore	01/31/2019	01/31/2019
Info has been requested from company	Bill Dismore	11/30/2018	11/30/2018
Info has been requested from company	Bill Dismore	10/17/2018	10/17/2018
Disapproved	Janet Houser	03/24/2017	03/24/2017

Response Letters

Responded By	Created On	Date Submitted
Joanne Witham	07/02/2019	07/02/2019
Joanne Witham	07/01/2019	07/01/2019
Carol Folsom	02/20/2019	02/20/2019
Carol Folsom	02/20/2019	02/20/2019
Carol Folsom	02/01/2019	02/01/2019
Carol Folsom	01/09/2019	01/09/2019
Michelle Fluet	11/20/2018	11/20/2018
Carol Folsom	03/22/2018	03/22/2018

Amendments

Schedule	Schedule Item Name	Created By	Created On	Date Submitted
Rate	Rate table	Carol Folsom	05/23/2019	05/23/2019
Supporting Document	L&H Actuarial Memorandum	Carol Folsom	05/23/2019	05/23/2019

State: *Virginia*
Filing Company: *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Amendments

Schedule	Schedule Item Name	Created By	Created On	Date Submitted
Supporting Document	5/23/2019 Shared Cost Cover Letter	Carol Folsom	05/23/2019	05/23/2019
Supporting Document	Rate Increase Filing Summary	Carol Folsom	07/10/2018	07/10/2018

Filing Notes

Subject	Note Type	Created By	Created On	Date Submitted
Outstanding Objection of 11/30/2018	Note To Filer	Bill Dismore	01/04/2019	01/04/2019
Status/Filing Summary	Note To Reviewer	Carol Folsom	07/10/2018	07/10/2018
Objection Response	Note To Filer	Bobby Toone	03/21/2018	03/21/2018
RRS	Reviewer Note	Bill Dismore	09/28/2018	

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Disposition

Disposition Date: 07/03/2019
Implementation Date:
Status: Approved

Comment:

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
John Hancock Life Insurance Company (USA)	14.100%	14.100%	$440,551	3,103	$3,116,159	18.800%	-5.400%

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	Certification of Compliance	Received & Acknowledged	Yes
Supporting Document	Product Checklist	Received & Acknowledged	Yes
Supporting Document (revised)	L&H Actuarial Memorandum	Received & Acknowledged	Yes
Supporting Document	L&H Actuarial Memorandum	Withdrawn	No
Supporting Document	L&H Actuarial Memorandum	Withdrawn	No
Supporting Document	L&H Actuarial Memorandum	Withdrawn	No
Supporting Document (revised)	Long Term Care Insurance Rate Request Summary	Received & Acknowledged	Yes
Supporting Document	Long Term Care Insurance Rate Request Summary	Withdrawn	No
Supporting Document	Cover letter	Received & Acknowledged	Yes
Supporting Document	3/22/2018 response to 3/24/2017 objection	Received & Acknowledged	Yes
Supporting Document	Rate Increase Filing Summary	Received & Acknowledged	Yes
Supporting Document	Response to 10/17/18 objection	Received & Acknowledged	Yes
Supporting Document	1/9/2019 response to 11/30/2018 objection letter	Received & Acknowledged	Yes
Supporting Document	Sample Certificateholder notification letters	Received & Acknowledged	Yes
Supporting Document	Approved Policy Forms Listings	Received & Acknowledged	Yes
Supporting Document	2/20/2019 Response to 2/11/2019 and 2/12/2019 objections	Received & Acknowledged	Yes
Supporting Document	5/23/2019 Shared Cost Cover Letter	Received & Acknowledged	Yes
Supporting Document	Response to 7/2/2019 objection letter	Received & Acknowledged	Yes

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate (revised)	Rate table	Approved	Yes
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Rate Table	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate (revised)	Removed	Withdrawn	No
Rate	Rate table	Withdrawn	No
Rate	Rate tables	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No

State: *Virginia*
Filing Company: *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Schedule	Schedule Item	Schedule Item Status	Public Access
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No
Rate	Rate Table	Withdrawn	No

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	07/02/2019
Submitted Date	07/02/2019
Respond By Date	07/09/2019

Dear Carol Folsom,

Introduction:

One or more forms included within the submission were found to be in non-conformity with statutory, regulatory or administrative requirements as set forth below.

Objection 1

Comments: Please provide a brief narrative to the Rate Request Summary in consumer friendly language.

Conclusion:

We shall be glad to reconsider this submission upon receipt of the revised forms to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned.

A response to this objection (or request for information if more applicable) is expected within 30 days. After 30 days, the filing will be DISAPPROVED unless a 30-day extension is requested.

Once a submission has been closed, a new SERFF submission will be required. To expedite the review, the new submission should reference the SERFF tracking number of the prior submission and verify that all outstanding issues have been addressed.

Should you wish to discuss any of the objections or provide additional information related to any of the objections, this should be done prior to making a new SERFF submission.

Thank you for your courtesy and consideration in this matter.

Sincerely,
Bill Dismore

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	05/01/2019
Submitted Date	05/01/2019
Respond By Date	

Dear Carol Folsom,

Introduction:

One or more forms included within the submission were found to be in non-conformity with statutory, regulatory or administrative requirements as set forth below.

Objection 1

Comments: Further action on this filing is pending approval of necessary form(s) in a separate filing. Once related forms are approved, processing will continue with this filing.

Conclusion:

We shall be glad to reconsider this submission upon approval of the requested information to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned at (804) 371-9370.

Thank you.

Sincerely,
Bill Dismore

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	02/12/2019
Submitted Date	02/12/2019
Respond By Date	03/12/2019

Dear Carol Folsom,

Introduction:

During our review, we noted an additional item in the actuarial memorandum that requires an explanation as stated below. Please note, any revisions, modifications, or changes of any type to a filing not specifically requested by us must be brought to our attention upon resubmission and explained in detail.

Objection 1

- L&H Actuarial Memorandum (Supporting Document)
Comments: 16. Requested Rate Increase, item 2.

We are confused by the Companys statement, After the application of this restriction the average rate increase for the forms listed in this memo is 43.5%, ranging from 20.2% to 43.9%. This differs from your stated average rate increase range of 8.4% on page 10 under 16. Requested Rate Increase, 1.

Please clarify this comment and its effect on the rate increase request.

Conclusion:

We shall be glad to reconsider this submission upon receipt of the requested information to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned.

A response to this objection (or request for information if more applicable) is expected within 30 days. After 30 days, the filing will be DISAPPROVED unless a 30-day extension is requested.

Once a submission has been closed, a new SERFF submission will be required. To expedite the review, the new submission should reference the SERFF tracking number of the prior submission and verify that all outstanding issues have been addressed.

Should you wish to discuss any of the objections or provide additional information related to any of the objections, this should be done prior to making a new SERFF submission.

Thank you for your courtesy and consideration in this matter.

Sincerely,
Bill Dismore

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	02/11/2019
Submitted Date	02/11/2019
Respond By Date	03/12/2019

Dear Carol Folsom,

Introduction:

During our review, we noted the following inconsistencies and/or need additional information to continue. Please note, any revisions, modifications, or changes of any type to a filing not specifically requested by us must be brought to our attention upon resubmission and explained in detail.

Objection 1

- L&H Actuarial Memorandum (Supporting Document)
- Rate tables, [P-FACE(2002-2), et al.] (Rate)
Comments: Rate/Rule Schedule - GPB-COV-0002

1) For Form Number GPB-COV-0002 etal, the Company has proposed rate revisions from -5.3% to 13.5%. There are 58 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on each proposed rate table the percentage of the rate revision the Company is requesting.

2) Please provide an explanation as to why the Previous State Filing Number is unavailable for these forms. Provide the SERFF number(s) for the rate filing that provided the approval in VA for the current rates for these forms.

Objection 2

- L&H Actuarial Memorandum (Supporting Document)
- Rate tables, [P-FACE(2002-2), et al.] (Rate)
Comments: Rate/Rule Schedule - P-FACE(2002-2) VA with Issue Date Range July 2003 - September 2003

For Form Number P-FACE(2002-2) VA etal, the Company has proposed rate revisions from 15.8% to 18.8%. There are 23 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on the proposed rate tables of the percentage of rate revision the Company is requesting.

Objection 3

- L&H Actuarial Memorandum (Supporting Document)
Comments: Page 11, 5th paragraph that begins with, "Some of our older group clients...."

Please provide a count of the number of insureds that will be affected. Describe what information will be provided to them.

Objection 4

Comments: Provide an explanation as to why Company combined the P-FACE(2002-2) and the GPB-COV-0002 filings were filed together.

Conclusion:

We shall be glad to reconsider this submission upon receipt of the requested information to address the objections noted

above. Should you need clarification of any of the information contained in this letter, please contact the undersigned.

A response to this objection (or request for information if more applicable) is expected within 30 days. After 30 days, the filing will be DISAPPROVED unless a 30-day extension is requested.

Once a submission has been closed, a new SERFF submission will be required. To expedite the review, the new submission should reference the SERFF tracking number of the prior submission and verify that all outstanding issues have been addressed.

Should you wish to discuss any of the objections or provide additional information related to any of the objections, this should be done prior to making a new SERFF submission.

Thank you for your courtesy and consideration in this matter.

Sincerely,
Bill Dismore

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	01/31/2019
Submitted Date	01/31/2019
Respond By Date	02/14/2019

Dear Carol Folsom,

Introduction:

During our review, we noted the following inconsistencies and/or need additional information to continue. Please note, any revisions, modifications, or changes of any type to a filing not specifically requested by us must be brought to our attention upon resubmission and explained in detail.

Objection 1

Comments: Supporting Documentation

- Please provide a sample John Doe rate increase policyholder notification letter in Supporting Documentation.

- Confirm that the policyholder notification letter documents to be used are the documents filed under SERFF MULF-130883116

Conclusion:

We shall be glad to reconsider this submission upon receipt of the revised forms to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned.

A response to this objection (or request for information if more applicable) is expected within 30 days. After 30 days, the filing will be DISAPPROVED unless a 30-day extension is requested.

Once a submission has been closed, a new SERFF submission will be required. To expedite the review, the new submission should reference the SERFF tracking number of the prior submission and verify that all outstanding issues have been addressed.

Should you wish to discuss any of the objections or provide additional information related to any of the objections, this should be done prior to making a new SERFF submission.

Thank you for your courtesy and consideration in this matter.

Sincerely,
Bill Dismore

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	11/30/2018
Submitted Date	11/30/2018
Respond By Date	01/18/2019

Dear Carol Folsom,

Introduction:

During our review, we noted the following inconsistencies and/or need additional information to continue. Please note, any revisions, modifications, or changes of any type to a filing not specifically requested by us must be brought to our attention upon resubmission and explained in detail.

Objection 1

- Response to 10/17/18 objection (Supporting Document)

Comments: We note that the active life reserve balance relative to the anticipated future claims is high for some subsets of the block, causing the anticipated future loss ratio after deducting reserves to be less than the minimum. Has there been reserve strengthening or is there an assumption basis mismatch that would explain this result?

Conclusion:

We shall be glad to reconsider this submission upon receipt of the requested information to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned. Thank you.

Sincerely,
Bill Dismore

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Objection Letter

Objection Letter Status	Info has been requested from company
Objection Letter Date	10/17/2018
Submitted Date	10/17/2018
Respond By Date	11/20/2018

Dear Carol Folsom,

Introduction:

During our review, we noted the following inconsistencies and/or need additional information to continue. Please note, any revisions, modifications, or changes of any type to a filing not specifically requested by us must be brought to our attention upon resubmission and explained in detail.

Objection 1

- L&H Actuarial Memorandum (Supporting Document)

- 3/22/2018 response to 3/24/2017 objection (Supporting Document)

Comments: 1.Please provide the 2016 Rate Increase Filing Summary 03142018.pdf in Excel format and include the cumulative total of all approved rate increases to date in each state.

2.Since only a sample of voluntary lapse rates is supplied, please provide the average ultimate voluntary lapse rates under current assumptions for this block of business.

3.Please provide the historical claim count for each product series.

4.Please clarify the percentages listed in section 16.2 of the memorandum for GPB-COV-0002, which do not seem to correspond to the final rate increase percentages in this filing.

5.For both the model refinements and the model corrections, the documentation quantifies the impact versus the 2010 pricing models. To what extent were these modeling deficiencies present in the original pricing models?

6.For all projections requested in the next question, the baseline should comply with the following:

a.Any limited-pay paid-up policies should be removed, both from historical experience and future projections.

b.For this pre-stability block, assumptions should be best-estimate, without margins for moderately adverse conditions.

c.Premiums should be at the Virginia rate level for both historical and projected future.

d.Please use the appropriate average maximum valuation interest rate for each product series for accumulation and discounting of this block as specified in 14VAC5-200-150.

e.Please ensure that the discount/accumulation formulas are working formulas and specify the interest rates used in each exhibit.

7.Because the Bureau has observed over the years that there is often internal subsidization occurring between policyholders with different policy characteristics, for each of the four subsets of the business corresponding to the combinations of (limited/lifetime benefit periods) and (without/with inflation protection), please provide (in Excel format) the following projections on a nationwide

basis:

a.current assumptions and current rates

b.current assumptions and current rates, including paid-up policies (if any)

c.current assumptions with the proposed rate increase

d.current assumptions with the proposed rate increase, but with no shock lapses, benefit reductions, CBUL, or adverse selection (if applicable)

e.current assumptions with premiums restated as if the proposed rate schedule had been in effect from inception

f.original assumptions and original premiums from inception

g.actual past experience (claims, mortality, lapse) but original assumptions in the future, with all premiums at the original premium scale from inception.

Projections a-g can be separate tabs or combined into separate columns on the same exhibit.

8.For each of the four subsets of the business above, please provide the active life reserves balance as of the projection date on a nationwide basis.

9.Since this filing includes two distinct product series, please provide the above exhibits separately for each series.

10.Relative value from landing spot election is typically not equivalent for each individual insured. How does the company communicate to the policyholder that all options may not be of equal value from their perspective?

Conclusion:

We shall be glad to reconsider this submission upon receipt of the requested information to address the objections noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned. Thank you.

Sincerely,
Bill Dismore

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Objection Letter

Objection Letter Status	Disapproved
Objection Letter Date	03/24/2017
Submitted Date	03/24/2017
Respond By Date	

Dear Carol Folsom,

Introduction:

The submission is DISAPPROVED and may not be used in the Commonwealth of Virginia.

A preliminary review of the submitted filing indicates the following concerns and questions. We'll continue our review of the submitted filing upon receipt of the following information:

The project name in General Information indicates this is a Pre-RS filing yet the Actuarial Memorandum indicates the issue ranges for GPB-COV-0002 are from December 1998 through June 2012. If that is the case, please provide the number of policies issued prior to October 1, 2003 and the number of policies issued on or after October 1, 2003. Long term care policies issued on or after October 1, 2003 are subject to the rate stabilization standards set forth in 14VAC5-200-153. Issue dates prior to that date are subject to the loss ratio standards set forth in 14VAC5-200-150. Since forms were issued prior and subsequent to that date, the company will need to demonstrate compliance with both 14VAC5-200-150 and 14VAC5-200-153 for each block separately. Please provide separate exhibits for each block illustrating experience and projections as required.

Re-state the nationwide experience using Virginia approved rates.

Provide a separate calculation of the Lifetime Loss Ratio so that the historical premium component is restated to what it would be if the proposed premium had been charged (collected) since the forms' introduction.

Please provide an actual-to-expected analysis on each assumption, with expected on both original and current assumption basis.

Please provide a step-by-step quantification of the impact of the change in each assumption from the original assumptions to the current assumptions.

Please use the average maximum statutory valuation interest rate for each block of business to accumulate and discount cash flows.

Please provide sufficient detail or documentation provided so that any projections can be recreated. Please provide a copy of all projections in Excel with working formulas.

According to item 20 of the memorandum, the Company has stated no state's rate increase approvals will subsidize other states' experience. For review purposes, please advise in what states the company has requested rate increases on this block, how the rate changes requested in Virginia compare with those requested in other states, and the current status of the reviews in other states.

Please provide a loss ratio projection reflecting the actual historical experience during the historical experience period and then, utilizing the actual inforce as of the projection date, projecting forward the expected earned premiums and incurred claims using the original pricing assumptions for interest, mortality, morbidity and persistency into the future and assuming the future premiums are paid based on the original premium scale as if no increases had ever been implemented.

Please provide a loss ratio projection (both past and future) which reflects all of the original pricing assumptions for interest, mortality, morbidity, persistency and premium scale, but uses the actual distribution of policies as issued rather than the originally assumed mix of business.

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Please provide a detailed explanation of the data sources and actuarial review performed in setting each assumption, including discussion of any adjustments made to reflect the company's unique business.

Please provide the reserve basis and justification for the reserve levels provided.

For each projection provided, please provide the anticipated future loss ratio where the numerator is equal to the anticipated incurred claims less policy reserves, and the denominator is equal to the anticipated earned premium for the pre stability block.

The actuarial certification for the Pre-Stability block should be revised for compliance with 14VAC5-130-70 B 14.

For the post stability block, please respond to the following:

Please explain what, if any, margins are included in the proposed rates to ensure that future rate increases will not be needed presuming the experience develops as projected including a demonstration that actual and projected costs exceed costs anticipated at the time of initial pricing under moderately adverse experience and that the composite margin is projected to be exhausted.

How does the company plan to comply with 14VAC5-200-153.G.1.

Conclusion:

We shall be glad to reconsider this submission upon receipt of the information noted above. Should you need clarification of any of the information contained in this letter, please contact the undersigned.

Thank you for your courtesy and consideration in this matter.

Sincerely,
Janet Houser

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	07/02/2019
Submitted Date	07/02/2019

Dear Bill Dismore,

Introduction:

Response 1

Comments:

Please see our response and the updated summary in the Supporting Documentation.

Related Objection 1

Comments: Please provide a brief narrative to the Rate Request Summary in consumer friendly language.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	Long Term Care Insurance Rate Request Summary
Comments:	
Attachment(s):	GLTC Appendix 1.pdf Pre-RS VA Summary.pdf
Previous Version	
Satisfied - Item:	*Long Term Care Insurance Rate Request Summary*
Comments:	
Attachment(s):	*Pre-RS VA Summary.pdf* *GLTC Appendix 1.pdf*

State:	*Virginia*	**Filing Company:**	*John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI:	*LTC03G Group Long Term Care/LTC03G.001 Qualified*		
Product Name:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing*		
Project Name/Number:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing/*		

Supporting Document Schedule Item Changes	
Satisfied - Item:	Long Term Care Insurance Rate Request Summary
Comments:	
Attachment(s):	GLTC Appendix 1.pdf Pre-RS VA Summary.pdf
Previous Version	
Satisfied - Item:	*Long Term Care Insurance Rate Request Summary*
Comments:	
Attachment(s):	*Pre-RS VA Summary.pdf* *GLTC Appendix 1.pdf*

Satisfied - Item:	Response to 7/2/2019 objection letter
Comments:	
Attachment(s):	VA 7-2-19 Objection Response GLTC Pre RS.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Sincerely,
Joanne Witham

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	07/01/2019
Submitted Date	07/01/2019

Dear Bill Dismore,

Introduction:

Response 1

Comments:

Please note the corresponding forms in SERFF filing #MULF-130883116 were approved by your department 6/28/2019.

Related Objection 1

Comments: Further action on this filing is pending approval of necessary form(s) in a separate filing. Once related forms are approved, processing will continue with this filing.

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you for your time in this matter.

Sincerely,

Joanne Witham

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	02/20/2019
Submitted Date	02/20/2019

Dear Bill Dismore,

Introduction:

Thank you for your note dated 2/12/2019 regarding this submission.

Response 1

Comments:

Please see item No. 5 in our 2/20/2019 response letter.

Related Objection 1

Applies To:
- L&H Actuarial Memorandum (Supporting Document)
Comments: 16. Requested Rate Increase, item 2.

We are confused by the Companys statement, After the application of this restriction the average rate increase for the forms listed in this memo is 43.5%, ranging from 20.2% to 43.9%. This differs from your stated average rate increase range of 8.4% on page 10 under 16. Requested Rate Increase, 1.

Please clarify this comment and its effect on the rate increase request.

Changed Items:

No Supporting Documents changed.

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you for your time and consideration in this matter.

Sincerely,
Carol A. Folsom

Sincerely,
Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	02/20/2019
Submitted Date	02/20/2019

Dear Bill Dismore,

Introduction:

Thank you for your note dated 2/11/2019 regarding this submission.

Response 1

Comments:

Please see our response letter and additional materials under the Supporting Documentation tab.

Related Objection 1

Applies To:

- *Rate tables, [P-FACE(2002-2), et al.] (Rate)*
- *L&H Actuarial Memorandum (Supporting Document)*

Comments: Rate/Rule Schedule - GPB-COV-0002

1) For Form Number GPB-COV-0002 etal, the Company has proposed rate revisions from -5.3% to 13.5%. There are 58 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on each proposed rate table the percentage of the rate revision the Company is requesting.

2) Please provide an explanation as to why the Previous State Filing Number is unavailable for these forms. Provide the SERFF number(s) for the rate filing that provided the approval in VA for the current rates for these forms.

Changed Items:

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

No Form Schedule items changed.

Rate/Rule Schedule Item Changes

Item No.	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments	Date Submitted
1	Rate table	P-FACE(2002-2) VA, et al.	Revised	Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1	P-FACE(2002-2) VA - Pre-RS.pdf,	02/20/2019 By: Carol Folsom
Previous Version						
1	*Rate tables*	*P-FACE(2002-2), et al.*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

Response 2

Comments:

Please see our response letter and additional materials under the Supporting Documentation tab.

Related Objection 2

Applies To:

- *Rate tables, [P-FACE(2002-2), et al.] (Rate)*
- *L&H Actuarial Memorandum (Supporting Document)*

Comments: Rate/Rule Schedule - P-FACE(2002-2) VA with Issue Date Range July 2003 - September 2003

For Form Number P-FACE(2002-2) VA etal, the Company has proposed rate revisions from 15.8% to 18.8%. There are 23 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on the proposed rate tables of the percentage of rate revision the Company is requesting.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

No Form Schedule items changed.

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Item No.	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments	Date Submitted
1	Rate table	P-FACE(2002-2) VA, et al.	Revised	Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1	P-FACE(2002-2) VA - Pre-RS.pdf,	02/20/2019 By: Carol Folsom
Previous Version						
1	*Rate tables*	*P-FACE(2002-2), et al.*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

Response 3

Comments:

Please see our response letter and additional materials under the Supporting Documentation tab.

Related Objection 3

Applies To:

- L&H Actuarial Memorandum (Supporting Document)

Comments: Page 11, 5th paragraph that begins with, "Some of our older group clients...."

Please provide a count of the number of insureds that will be affected. Describe what information will be provided to them.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Response 4

Comments:

Please see our response letter and additional materials under the Supporting Documentation tab.

Related Objection 4

Comments: Provide an explanation as to why Company combined the P-FACE(2002-2) and the GPB-COV-0002 filings were filed together.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Satisfied - Item:	Approved Policy Forms Listings
Comments:	Please see the attached listings of forms which comprise our 1997 and 2002 Group Policies. Therefore, we have removed the individually listed forms and repetitive rate files under the Rate/Rule Schedule tab.
Attachment(s):	VA FORMS LIST FOR 1997 PLAN.pdf VA FORMS LIST FOR 2002 PLAN.pdf

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised Care Choice actuarial memo_122116.pdf Revised GLTC 1997 actuarial memo.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Satisfied - Item:	Approved Policy Forms Listings
Comments:	Please see the attached listings of forms which comprise our 1997 and 2002 Group Policies. Therefore, we have removed the individually listed forms and repetitive rate files under the Rate/Rule Schedule tab.
Attachment(s):	VA FORMS LIST FOR 1997 PLAN.pdf VA FORMS LIST FOR 2002 PLAN.pdf

Satisfied - Item:	2/20/2019 Response to 2/11/2019 and 2/12/2019 objections
Comments:	
Attachment(s):	2019-2-11 & 2019-2-12 VA Pre RS Response.pdf VA GLTC 1997 Appendix E.pdf VA Care Choice Appendix E.pdf

No Form Schedule items changed.

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

Item No.	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments	Date Submitted
1	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
1	*Rate Table*	*P-FACE(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
2	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
2	*Rate Table*	*P-TOC(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
3	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
3	*Rate Table*	*P-MS(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

4	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
4	*Rate Table*	*P-PREM(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
5	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
5	*Rate Table*	*P-MISC(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
6	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
6	*Rate Table*	*C-SOB(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
7	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

7	*Rate Table*	*D-TOC(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
8	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
8	*Rate Table*	*D-DEF(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
9	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
9	*Rate Table*	*D-GEN(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
10	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
10	*Rate Table*	*D-LTC(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

11	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
11	*Rate Table*	*D-EXCL(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
12	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
12	*Rate Table*	*D-LTC-INF(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
13	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
13	*Rate Table*	*D-LTC-NF(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
14	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

14	*Rate Table*	*D-LTC-CNF(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
15	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
15	*Rate Table*	*D-LTC-ROP(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
16	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
16	*Rate Table*	*D-LTC-SHC(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
17	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
17	*Rate Table*	*D-CLAIM(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

18	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
18	*Rate Table*	*D-COB(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
19	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
19	*Rate Table*	*D-PREM(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
20	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
20	*Rate Table*	*D-TERM(2002-2)*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
21	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

21	*Rate Table*	*D-MISC(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
22	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
22	*Rate Table*	*C-FACE(2002-2) VA*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*
23	Rate Table	GPB-COV-0002, et al	Revised	Previous State Filing Number: paper filing - 007 0000008380 Percent Rate Change Request: 8.4	GPB-COV-0002.pdf,	02/20/2019 By: Carol Folsom
Previous Version						
23	*Rate Table*	*GPB-COV-002*	*Revised*	*Previous State Filing Number: Not Avaialble Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
24	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
24	*Rate Table*	*GPB-TOC-002*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
25	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
25	*Rate Table*	*GPB-PRE-0011*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
26	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
26	*Rate Table*	*GPB-PRE-0015*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
27	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
27	*Rate Table*	*GPB-PRE-0010*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
28	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
28	*Rate Table*	*GPB-PRE-0012*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
29	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
29	*Rate Table*	*GPB-SBR-005*	*Revised*	*Previous State Filing Number: Not Avaiable Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
30	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
30	*Rate Table*	*GPB-SPR-007*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
31	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
31	*Rate Table*	*GPB-MPR-0010*	*Revised*	*Previous State Filing Number: Not Avaiable Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
32	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
32	*Rate Table*	*GPB-MPR-0011*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
33	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
33	*Rate Table*	*GPB-MPR-0012*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
34	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
34	*Rate Table*	*GPB-MPR-0013*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
35	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
35	*Rate Table*	*GPB-BCK-0002*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
36	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
36	*Rate Table*	*GDB-TOC-0005*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
37	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
37	*Rate Table*	*GDB-SCH-0007*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
38	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
38	*Rate Table*	*GDB-W&P-0057*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
39	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
39	*Rate Table*	*GDB-W&P-0072*	*Revised*	*Previous State Filing Number:* *Not Avaiable* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
40	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
40	*Rate Table*	*GDB-W&P-0080*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
41	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
41	*Rate Table*	*GDB-W&P-0073*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
42	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
42	*Rate Table*	*GDB-W&P-0065*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
43	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
43	*Rate Table*	*GDB-W&P-0060*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
44	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
44	*Rate Table*	*GDB-W&P-0074*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
45	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
45	*Rate Table*	*GDB-W&P-0075*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
46	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
46	*Rate Table*	*GDB-W&P-0082*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
47	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
47	*Rate Table*	*GDB-W&P-0076*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
48	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
48	*Rate Table*	*GDB-W&P-0069*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
49	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
49	*Rate Table*	*GDB-W&P-0068*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
50	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
50	*Rate Table*	*GDB-GNP-0062*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
51	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
51	*Rate Table*	*GDB-GNP-0063*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
52	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
52	*Rate Table*	*GDB-GNP-0071*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
53	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
53	*Rate Table*	*GDB-GNP-0072*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
54	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
54	*Rate Table*	*GDB-GNP-0075*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
55	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
55	*Rate Table*	*GDB-GNP-0067*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
56	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
56	*Rate Table*	*GDB-GNP-0068*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
57	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
57	*Rate Table*	*GDB-GNP-0069*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
58	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
58	*Rate Table*	*GDB-MCM-0001*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
59	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
59	*Rate Table*	*GDB-LTC-0058*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
60	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
60	*Rate Table*	*GDB-LTC-0059*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
61	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
61	*Rate Table*	*GDB-LTC-0039*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
62	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
62	*Rate Table*	*GDB-LTC-0040*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
63	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
63	*Rate Table*	*GDB-LTC-0086*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
64	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
64	*Rate Table*	*GDB-LTC-0087*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
65	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
65	*Rate Table*	*GDB-LTC-0088*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
66	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
66	*Rate Table*	*GDB-LTC-0089*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
67	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
67	*Rate Table*	*GDB-LTC-0043*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
68	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
68	*Rate Table*	*GDB-LTC-0051*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
69	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
69	*Rate Table*	*GDB-LTC-0090*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
70	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
70	*Rate Table*	*GDB-LTC-0066*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
71	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
71	*Rate Table*	*GDB-LTC-0070*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
72	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
72	*Rate Table*	*GDB-COB-0011*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
73	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
73	*Rate Table*	*GDB-COB-0012*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
74	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
74	*Rate Table*	*GDB-COB-0013*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
75	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
75	*Rate Table*	*GDB-COB-0014*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
76	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
76	*Rate Table*	*GDB-MED-0007*	*Revised*	*Previous State Filing Number:* *Not Available* *Percent Rate Change Request:* *8.4*	*GPB-COV-0002.pdf,*	*03/09/2017* *By: Joanne Witham*
77	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate/Rule Schedule Item Changes

Previous Version						
77	*Rate Table*	*GDB-MED-008*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
78	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
78	*Rate Table*	*GDB-HIC-0016*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
79	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
79	*Rate Table*	*GDB-HIC-0011*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request: 8.4*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*
80	Removed	Removed	Revised	Previous State Filing Number: Percent Rate Change Request:		02/20/2019 By: Carol Folsom
Previous Version						
80	*Rate Table*	*GDB-HIC-0012*	*Revised*	*Previous State Filing Number: Not Available Percent Rate Change Request:*	*GPB-COV-0002.pdf,*	*03/09/2017 By: Joanne Witham*

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule Item Changes

				8.4		
81	Rate table	P-FACE(2002-2) VA, et al.	Revised	Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1	P-FACE(2002-2) VA - Pre-RS.pdf,	02/20/2019 By: Carol Folsom
Previous Version						
81	*Rate tables*	*P-FACE(2002-2), et al.*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

Conclusion:

Thank you for your time and consideration in this matter.

Sincerely,
Carol A. Folsom
Sincerely,
Carol Folsom

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	02/01/2019
Submitted Date	02/01/2019

Dear Bill Dismore,

Introduction:

Thank you for your note yesterday regarding this submission.

Response 1

Comments:

We have uploaded copies of the sample certificate holder notification letters under the Supporting Documentation tab. We are confirming that the certificate holder documents to be used are the documents filed under SERFF MULF-130883116.

Related Objection 1

Comments: Supporting Documentation

- Please provide a sample John Doe rate increase policyholder notification letter in Supporting Documentation.

- Confirm that the policyholder notification letter documents to be used are the documents filed under SERFF MULF-130883116

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	Sample Certificateholder notification letters
Comments:	
Attachment(s):	JHLTC-2435.pdf JHLTC-2435_FPO_VA final.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you for your time and consideration in this matter.

Sincerely,
Carol A. Folsom

Sincerely,
Carol Folsom

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	01/09/2019
Submitted Date	01/09/2019

Dear Bill Dismore,

Introduction:

Thank you for your note dated 11/30/2018 regarding this submission.

Response 1

Comments:

Please see our response letter under the Supporting Documentation tab.

Related Objection 1

Applies To:

- Response to 10/17/18 objection (Supporting Document)

Comments: We note that the active life reserve balance relative to the anticipated future claims is high for some subsets of the block, causing the anticipated future loss ratio after deducting reserves to be less than the minimum. Has there been reserve strengthening or is there an assumption basis mismatch that would explain this result?

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	1/9/2019 response to 11/30/2018 objection letter
Comments:	
Attachment(s):	2018-11-30 VA Pre RS Response.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you for your time and consideration in this matter.

Sincerely,
Carol A. Folsom
Sincerely,

State: Virginia
Filing Company: John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Carol Folsom

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	11/20/2018
Submitted Date	11/20/2018

Dear Bill Dismore,

Introduction:

Thank you for your letter.

Response 1

Comments:

Please find our response to you October 17, 2018 objection on the Supporting Documentation tab labeled as "Response to 10/17/18 objection".

Related Objection 1

Applies To:

- *L&H Actuarial Memorandum (Supporting Document)*
- *3/22/2018 response to 3/24/2017 objection (Supporting Document)*

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Comments: 1.Please provide the 2016 Rate Increase Filing Summary 03142018.pdf in Excel format and include the cumulative total of all approved rate increases to date in each state.

2.Since only a sample of voluntary lapse rates is supplied, please provide the average ultimate voluntary lapse rates under current assumptions for this block of business.

3.Please provide the historical claim count for each product series.

4.Please clarify the percentages listed in section 16.2 of the memorandum for GPB-COV-0002, which do not seem to correspond to the final rate increase percentages in this filing.

5.For both the model refinements and the model corrections, the documentation quantifies the impact versus the 2010 pricing models. To what extent were these modeling deficiencies present in the original pricing models?

6.For all projections requested in the next question, the baseline should comply with the following:

a.Any limited-pay paid-up policies should be removed, both from historical experience and future projections.

b.For this pre-stability block, assumptions should be best-estimate, without margins for moderately adverse conditions.

c.Premiums should be at the Virginia rate level for both historical and projected future.

d.Please use the appropriate average maximum valuation interest rate for each product series for accumulation and discounting of this block as specified in 14VAC5-200-150.

e.Please ensure that the discount/accumulation formulas are working formulas and specify the interest rates used in each exhibit.

7.Because the Bureau has observed over the years that there is often internal subsidization occurring between policyholders with different policy characteristics, for each of the four subsets of the business corresponding to the combinations of (limited/lifetime benefit periods) and (without/with inflation protection), please provide (in Excel format) the following projections on a nationwide basis:

a.current assumptions and current rates

b.current assumptions and current rates, including paid-up policies (if any)

c.current assumptions with the proposed rate increase

d.current assumptions with the proposed rate increase, but with no shock lapses, benefit reductions, CBUL, or adverse selection (if applicable)

e.current assumptions with premiums restated as if the proposed rate schedule had been in effect from inception

f.original assumptions and original premiums from inception

g.actual past experience (claims, mortality, lapse) but original assumptions in the future, with all premiums at the original premium scale from inception.

Projections a-g can be separate tabs or combined into separate columns on the same exhibit.

8.For each of the four subsets of the business above, please provide the active life reserves balance as of the projection date on a nationwide basis.

9.Since this filing includes two distinct product series, please provide the above exhibits separately for each series.

10.Relative value from landing spot election is typically not equivalent for each individual insured. How does the company communicate to the policyholder that all options may not be of equal value from their perspective?

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	Response to 10/17/18 objection
Comments:	
Attachment(s):	2018-10-17 VA Pre RS Response.pdf 2016 Rate Increase Filing Summary_Pre RS.xlsx Incurred claims counts_Pre RS.xlsx LTCI_Considerations_103118.pdf Revised GLTC 1997 actuarial memo.pdf VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx VA GLTC1997 Loss Ratio Exhibit splits.xlsx Approaches to LTC Rate Increases Final from Pricing Subgroup.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Should you have any additional questions or concerns, please do not hesitate to contact us.

Sincerely,

Michelle Fluet

State:	*Virginia*	**Filing Company:**	*John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI:	*LTC03G Group Long Term Care/LTC03G.001 Qualified*		
Product Name:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing*		
Project Name/Number:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing/*		

Response Letter

Response Letter Status	Submitted to State
Response Letter Date	03/22/2018
Submitted Date	03/22/2018

Dear Bill Dismore,

Introduction:

Thank you for your note dated March 21, 2018 regarding this submission.

Response 1

Comments:

Please see our response letter and supporting documentation under the Supporting Documentation Tab.

Changed Items:

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised GLTC 1997 actuarial memo_122116.pdf #14 revised Care Choice actuarial memo_122116.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	#14 revised GLTC 1997 actuarial memo_122116.pdf #14 revised Care Choice actuarial memo_122116.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Satisfied - Item:	3/22/2018 response to 3/24/2017 objection
Comments:	
Attachment(s):	#9 VA CareChoice loss ratio exhibit.pdf #9 VA GLTC1997 loss ratio exhibit.pdf #10 VA CareChoice loss ratio exhibit.pdf #13 VA Pre-RS GLTC1997 loss ratio exhibit_adj res.pdf 2017-3-24 VA Pre RS Response.pdf #3 VA CareChoice loss ratio exhibit since inception.pdf #3 VA GLTC1997 loss ratio exhibit since inception.pdf #6 VA CareChoice loss ratio exhibit by interest rate.pdf #6 VA GLTC1997 loss ratio exhibit by interest rate.pdf #10 VA GLTC1997 loss ratio exhibit.pdf #13 VA Pre-RS CareChoice loss ratio exhibit_adj res.pdf 2013 Long Term Care Morbidity Final.pdf Pre-RS Demonstration Rate Increase Needed.pdf Understanding_Premium_Rate_Increases_on_Private_ LTCI_Policyholders_060216.pdf 2016 Rate Increase Filing Summary 03142018.pdf

No Form Schedule items changed.

No Rate/Rule Schedule items changed.

Conclusion:

Thank you for your time and consideration in this matter.

Sincerely,
Carol A. Folsom

Sincerely,
Carol Folsom

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Amendment Letter

Submitted Date: 05/23/2019

Comments:

Per the attached 5/23/2019 Cover Letter, we are amending this filing to include the Shared Cost Option, revised rates sheets and actuarial memorandum.

Changed Items:

No Form Schedule Items Changed.

Rate/Rule Schedule Item Changes

Item No.	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments	Date Submitted
1	Rate table	P-FACE(2002-2) VA, et al.	Revised	Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1	P-FACE(2002-2) VA.pdf,	05/23/2019 By:
Previous Version						
1	*Rate table*	*P-FACE(2002-2) VA, et al.*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*02/20/2019 By: Carol Folsom*
Previous Version						
1	*Rate tables*	*P-FACE(2002-2), et al.*	*Revised*	*Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1*	*P-FACE(2002-2) VA - Pre-RS.pdf,*	*03/09/2017 By: Joanne Witham*

Supporting Document Schedule Item Changes	
Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	Revised GLTC 1997 actuarial memo.pdf Care Choice Filing Package - VA Pre-RS.pdf
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised Care Choice actuarial memo_122116.pdf* *Revised GLTC 1997 actuarial memo.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*#14 revised GLTC 1997 actuarial memo_122116.pdf* *#14 revised Care Choice actuarial memo_122116.pdf*
Previous Version	
Satisfied - Item:	*L&H Actuarial Memorandum*
Comments:	
Attachment(s):	*GLTC 1997 VA Filing Package Pre-RS.pdf* *Care Choice Filing Package - VA Pre-RS.pdf*

Satisfied - Item:	5/23/2019 Shared Cost Cover Letter
Comments:	
Attachment(s):	VA 05-22-2019 Shared Cost Cover Letter_Pre RS.pdf

Amendment Letter

Submitted Date: 07/10/2018

Comments:

We are amending this filing to include a Rate Increase Filing Summary under the Supporting Documentation tab as noted in our Note to Reviewer.

Thank you.

Changed Items:

No Form Schedule Items Changed.

No Rate Schedule Items Changed.

Supporting Document Schedule Item Changes	
Satisfied - Item:	Rate Increase Filing Summary
Comments:	
Attachment(s):	2016 Rate Increase Filing Summary_Pre-RS.pdf

State:	*Virginia*	**Filing Company:**	*John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI:	*LTC03G Group Long Term Care/LTC03G.001 Qualified*		
Product Name:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing*		
Project Name/Number:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing/*		

Note To Filer

Created By:

Bill Dismore on 01/04/2019 02:11 PM

Last Edited By:

Bill Dismore

Submitted On:

07/01/2019 02:08 PM

Subject:

Outstanding Objection of 11/30/2018

Comments:

Please respond to the outstanding objection letter by 1/18/2019.

Note To Reviewer

Created By:

Carol Folsom on 07/10/2018 06:24 AM

Last Edited By:

Bill Dismore

Submitted On:

07/01/2019 02:08 PM

Subject:

Status/Filing Summary

Comments:

Please see our attached Note to Reviewer

John Hancock Financial Services

Long Term Care
601 Congress Street
Boston Massachusetts 02210

(617) 572-7026
JulieKRobinson@jhancock.com

Julie K. Robinson, FSA, MAAA, CFP®
Assistant Actuary, LTC In Force Management

LONG-TERM CARE INSURANCE

July 9, 2018

Janet Houser
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A.)
2016 Inforce Rate Increase Filing
SERFF ID: MULF-130882991

Dear Ms. Houser

The purpose of this letter is to follow up on the above filing submitted on March 3, 2017, where we responded to an additional request from the Dept on March 22, 2018. We'd like to inquire if any additional information is needed on your end.

Also, we would like to update you on the latest status of our rate increase filings nationwide. Because many states have asked for this information in the past, we wanted to be proactive in an effort to assist in your review of the above filing. As of July 9, 2018, for the products in this filing, we have been granted approval in 28 states of the 36 states where we have filed this plan. 7 of the 28 states have approved a portion of the requested amount (with the understanding that the full amount is actuarially justified and the unapproved balance would be filed for at a later date).

Please see the attached '2016 Rate Increase Filing Summary_Pre-RS.pdf' which shows the proposed 2016 rate increases in each state, along with the current status of each filing.

We appreciate your thoughtful analysis and considerable time assessing our rate increase requests thus far and look forward to hearing from you soon. Please do not hesitate to contact me if you have any questions on the above.

Sincerely,

Julie K. Robinson, FSA, MAAA, CFP®

State:	*Virginia*	**Filing Company:**	*John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI:	*LTC03G Group Long Term Care/LTC03G.001 Qualified*		
Product Name:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing*		
Project Name/Number:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing/*		

Note To Filer

Created By:

Bobby Toone on 03/21/2018 12:51 PM

Last Edited By:

Bill Dismore

Submitted On:

07/01/2019 02:08 PM

Subject:

Objection Response

Comments:

Objections were submitted on this filing on 3/24/2017. As of today, 3/21/2018, no response has been received. If a response is not received by 3/26/2018, this filing will be rejected.

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Reviewer Note

Created By:

Bill Dismore on 09/28/2018 10:24 AM

Last Edited By:

Bill Dismore

Submitted On:

07/03/2019 09:28 AM

Subject:

RRS

Comments:

Rate Review Summary

Reset Form

Health Insurance Rate Request Summary
Part 1 – To Be Completed By Company

Company Name and NAIC Number: John Hancock Life Insurance Company (U.S.A.) #65838

SERFF Tracking Number: MULF-130882991

Effective Date: Upon Approval

(Projected) Number of Insureds Affected: 3103

New Rates

Average Annual Premium Per Member: $1004

Revised Rates

Average Annual Premium Per Member: $1146

Average Requested Percentage Rate Change Per Member: 14.1%

Minimum Requested Percentage Rate Change Per Member: -5.4%

Maximum Requested Percentage Rate Change Per Member: 18.8%

Plans Affected
(The Form Number and "Product Name")

Form#	**"Product Name"(if applicable)**
GPB-COV-0002 P-FACE(2002-2) VA et al	Group Long Term Care Care Choice

Attach a brief narrative to summarize the key information used to develop the rates including the main drivers for new or revised rates.

This document is intended to help explain the rate filing and it is only a summary of the company's request. It is not intended to describe or include all factors or information considered in the review process. For more detailed information, please refer to the complete filing.

Health Insurance Rate Request Summary

Accurate forecasting and projecting of future claims experience on LTC insurance policies is complex in its detail and application. Many factors are considered at the time that pricing is established, such as the frequency and severity of particular medical conditions, the expected lifespan of policyholders, the length of time policies are expected to remain inforce, and the cost of care, to name a few. As claims are paid, these factors can change over time.

Unfortunately, the most recent detailed review of our pricing assumptions confirms that the expected claims over the life of your policy series are significantly higher today than they were expected to be when the premiums were originally determined. In general, we are seeing more, longer-lasting claims - claim incidence has increased, claim terminations have decreased, claim utilization has increased, and mortality have decreased.

Our decision to increase premiums is solely related to the future claims anticipated on these policies.

As an alternative to paying higher premiums, we are offering several benefit reduction alternatives and, in most cases, at least one option that will enable the policyholder to keep their premiums at or close to the same level as what is being paid before the rate increase.

State: Virginia **Filing Company:** John Hancock Life Insurance Company (USA)
TOI/Sub-TOI: LTC03G Group Long Term Care/LTC03G.001 Qualified
Product Name: VA 2016 GLTC In force Rate Filing - Pre-RS filing
Project Name/Number: VA 2016 GLTC In force Rate Filing - Pre-RS filing/

Rate Information

Rate data applies to filing.

Filing Method: Review and Approval
Rate Change Type: Increase
Overall Percentage of Last Rate Revision: 41.700%
Effective Date of Last Rate Revision: 02/03/2012
Filing Method of Last Filing: Review and Approval
SERFF Tracking Number of Last Filing:

Company Rate Information

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
John Hancock Life Insurance Company (USA)	14.100%	14.100%	$440,551	3,103	$3,116,159	18.800%	-5.400%

State: *Virginia* **Filing Company:** *John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI: *LTC03G Group Long Term Care/LTC03G.001 Qualified*
Product Name: *VA 2016 GLTC In force Rate Filing - Pre-RS filing*
Project Name/Number: *VA 2016 GLTC In force Rate Filing - Pre-RS filing/*

Rate/Rule Schedule

Item No.	Schedule Item Status	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments
1		Rate table	P-FACE(2002-2) VA, et al.	Revised	Previous State Filing Number: MULF-127963400 Percent Rate Change Request: 17.1	P-FACE(2002-2) VA.pdf,

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base							ABI Option: (5% Compound Inflation)						
	Benefit Period							Benefit Period						
	2 Years	3 Years	4 Years	5 Years	6 Years	10 Years	Life	2 Years	3 Years	4 Years	5 Years	6 Years	10 Years	Life
18-29	0.44	0.53	0.57	0.59	0.62	0.89	0.96	2.62	2.88	3.07	3.20	3.35	4.38	4.68
30	0.44	0.53	0.57	0.59	0.62	0.89	0.96	2.62	2.88	3.07	3.20	3.35	4.38	4.68
31	0.46	0.55	0.59	0.61	0.64	0.93	0.99	2.70	2.98	3.18	3.32	3.48	4.54	4.85
32	0.48	0.57	0.61	0.64	0.67	0.96	1.03	2.79	3.09	3.30	3.44	3.61	4.71	5.03
33	0.49	0.59	0.63	0.66	0.69	1.00	1.07	2.87	3.19	3.42	3.57	3.74	4.89	5.22
34	0.51	0.61	0.66	0.69	0.72	1.04	1.11	2.96	3.31	3.55	3.71	3.88	5.07	5.42
35	0.53	0.63	0.68	0.71	0.75	1.07	1.15	3.06	3.42	3.68	3.85	4.03	5.26	5.62
36	0.55	0.66	0.71	0.74	0.77	1.11	1.19	3.15	3.54	3.81	3.99	4.18	5.46	5.83
37	0.57	0.68	0.73	0.77	0.80	1.16	1.24	3.25	3.67	3.95	4.14	4.34	5.67	6.05
38	0.59	0.70	0.76	0.79	0.83	1.20	1.28	3.35	3.80	4.10	4.30	4.50	5.88	6.28
39	0.62	0.73	0.79	0.82	0.86	1.24	1.33	3.45	3.93	4.25	4.46	4.67	6.10	6.52
40	0.64	0.75	0.81	0.86	0.90	1.29	1.38	3.56	4.07	4.40	4.63	4.85	6.33	6.76
41	0.68	0.79	0.86	0.91	0.95	1.37	1.46	3.62	4.18	4.53	4.77	5.00	6.52	6.97
42	0.72	0.84	0.91	0.96	1.00	1.45	1.55	3.68	4.28	4.66	4.91	5.15	6.72	7.18
43	0.75	0.88	0.96	1.02	1.06	1.53	1.64	3.74	4.39	4.80	5.06	5.31	6.93	7.40
44	0.78	0.93	1.02	1.07	1.13	1.62	1.74	3.81	4.51	4.93	5.22	5.47	7.14	7.63
45	0.82	0.98	1.07	1.14	1.19	1.72	1.84	3.87	4.62	5.08	5.38	5.64	7.36	7.86
46	0.87	1.04	1.14	1.21	1.27	1.83	1.96	4.03	4.80	5.27	5.59	5.86	7.65	8.17
47	0.93	1.10	1.22	1.29	1.35	1.95	2.08	4.18	4.98	5.48	5.81	6.09	7.95	8.50
48	0.99	1.17	1.29	1.37	1.44	2.07	2.22	4.35	5.16	5.69	6.04	6.33	8.27	8.84
49	1.05	1.25	1.38	1.46	1.53	2.21	2.36	4.52	5.35	5.91	6.28	6.58	8.60	9.19
50	1.12	1.33	1.47	1.56	1.63	2.35	2.52	4.70	5.55	6.14	6.53	6.84	8.94	9.55
51	1.19	1.42	1.57	1.67	1.75	2.52	2.70	4.90	5.81	6.43	6.85	7.18	9.37	10.02
52	1.27	1.51	1.68	1.79	1.87	2.70	2.89	5.11	6.08	6.74	7.18	7.53	9.83	10.50
53	1.35	1.61	1.79	1.91	2.00	2.89	3.09	5.33	6.36	7.06	7.53	7.90	10.31	11.02
54	1.44	1.72	1.92	2.05	2.14	3.09	3.31	5.56	6.65	7.40	7.90	8.28	10.81	11.55
55	1.53	1.84	2.05	2.19	2.30	3.31	3.54	5.80	6.96	7.76	8.29	8.68	11.34	12.12
56	1.67	2.00	2.23	2.39	2.50	3.60	3.85	6.21	7.46	8.33	8.90	9.33	12.18	13.02
57	1.81	2.18	2.43	2.60	2.73	3.91	4.20	6.66	7.99	8.94	9.56	9.93	13.09	13.98
58	1.97	2.37	2.65	2.83	2.97	4.20	4.58	7.13	8.57	9.58	9.97	10.26	14.06	15.02
59	2.14	2.57	2.88	3.07	3.22	4.51	4.99	7.47	9.05	9.99	10.31	10.61	14.59	16.05
60	2.33	2.80	3.13	3.29	3.46	4.85	5.39	7.72	9.36	10.33	10.65	10.96	15.08	16.59
61	2.54	3.08	3.40	3.58	3.76	5.27	5.85	8.04	9.74	10.75	11.09	11.42	15.70	17.27
62	2.77	3.35	3.70	3.89	4.08	5.72	6.36	8.38	10.15	11.20	11.55	11.89	16.34	17.98
63	3.01	3.64	4.02	4.23	4.44	6.22	6.91	8.72	10.57	11.66	12.03	12.38	17.02	18.72
64	3.27	3.96	4.37	4.59	4.82	6.76	7.51	9.09	11.00	12.14	12.52	12.89	17.72	19.36
65	3.55	4.30	4.75	4.99	5.24	7.34	8.16	9.46	11.46	12.64	13.04	13.42	18.45	19.86
66	3.87	4.68	5.17	5.44	5.71	8.00	8.89	9.89	11.97	13.21	13.62	14.02	19.27	20.63
67	4.22	5.10	5.63	5.93	6.22	8.71	9.68	10.33	12.50	13.80	14.23	14.65	20.05	21.42
68	4.59	5.56	6.14	6.46	6.78	9.49	10.55	10.79	13.06	14.41	14.86	15.30	20.79	22.21
69	5.01	6.06	6.69	7.03	7.38	10.34	11.49	11.28	13.65	15.06	15.53	15.98	21.54	23.01
70	5.46	6.60	7.29	7.66	8.05	11.26	12.51	11.79	14.26	15.73	16.22	16.70	22.29	23.81
71	6.13	7.42	8.18	8.61	9.04	12.65	14.06	12.67	15.41	17.00	17.53	18.05	23.31	24.90
72	6.89	8.33	9.19	9.67	10.15	14.03	14.99	13.15	16.65	18.37	18.95	19.50	24.35	26.02
73	7.61	9.36	10.32	10.86	11.40	14.91	15.93	13.63	17.37	19.86	20.48	21.08	25.41	27.14
74	8.34	10.51	11.60	12.19	12.80	15.82	16.90	14.11	18.10	20.81	22.13	22.78	26.47	28.28
75	8.88	11.46	13.02	13.70	14.38	16.76	17.90	14.58	18.83	21.65	23.53	24.62	27.54	29.42
76	9.33	12.12	13.94	15.15	15.88	17.73	18.94	15.05	19.56	22.49	24.44	25.62	28.60	30.56
77	9.79	12.80	14.72	16.00	16.76	18.72	20.00	15.50	20.28	23.32	25.34	26.56	29.65	31.68
78	10.25	13.49	15.51	16.86	17.67	19.73	21.07	15.94	20.98	24.13	26.23	27.49	30.69	32.79
79	10.71	14.19	16.31	17.73	18.58	20.75	22.16	16.36	21.67	24.92	27.09	28.39	31.69	33.86
80	11.16	14.89	17.12	18.61	19.50	21.77	23.26	16.75	22.33	25.68	27.91	29.25	32.66	34.89
81	12.28	16.37	18.83	20.47	21.45	23.95	25.58	18.42	24.56	28.25	30.70	32.18	35.92	38.38
82	13.40	17.86	20.54	22.33	23.40	26.12	27.91	20.10	26.79	30.81	33.49	35.10	39.19	41.87
83	14.85	19.80	22.77	24.75	25.94	28.95	30.93	22.27	29.70	34.15	37.12	38.90	43.43	46.40
84	16.30	21.73	24.99	27.17	28.47	31.78	33.96	24.45	32.60	37.49	40.75	42.71	47.68	50.94
85+	19.76	26.35	30.30	32.93	34.52	38.53	41.17	29.64	39.52	45.45	49.40	51.77	57.80	61.75

Appendix B2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (3.3% Compound Inflation)				
	Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	1.52	1.67	1.79	1.86	1.95
30	1.52	1.67	1.79	1.86	1.95
31	1.57	1.73	1.85	1.93	2.02
32	1.62	1.79	1.92	2.00	2.10
33	1.67	1.86	1.99	2.08	2.18
34	1.72	1.92	2.06	2.16	2.26
35	1.78	1.99	2.14	2.24	2.34
36	1.83	2.06	2.22	2.32	2.43
37	1.89	2.13	2.30	2.41	2.52
38	1.95	2.21	2.38	2.50	2.62
39	2.01	2.29	2.47	2.59	2.72
40	2.07	2.37	2.56	2.69	2.82
41	2.11	2.43	2.63	2.77	2.90
42	2.14	2.49	2.71	2.86	2.99
43	2.18	2.55	2.79	2.94	3.08
44	2.21	2.62	2.87	3.03	3.18
45	2.25	2.69	2.95	3.13	3.28
46	2.34	2.79	3.07	3.25	3.41
47	2.43	2.89	3.18	3.38	3.54
48	2.53	3.00	3.31	3.51	3.68
49	2.63	3.11	3.44	3.65	3.83
50	2.73	3.23	3.57	3.80	3.98
51	2.85	3.38	3.74	3.98	4.17
52	2.97	3.53	3.92	4.18	4.38
53	3.10	3.70	4.11	4.38	4.59
54	3.23	3.87	4.30	4.59	4.81
55	3.37	4.05	4.51	4.82	5.05
56	3.61	4.34	4.84	5.18	5.42
57	3.87	4.65	5.20	5.56	5.82
58	4.14	4.98	5.57	5.96	6.24
59	4.43	5.33	5.97	6.39	6.69
60	4.74	5.70	6.40	6.86	7.18
61	4.98	6.01	6.75	7.24	7.58
62	5.23	6.33	7.13	7.65	8.01
63	5.49	6.67	7.52	8.08	8.46
64	5.77	7.03	7.94	8.53	8.94
65	6.06	7.41	8.38	9.01	9.44
66	6.42	7.89	8.95	9.64	10.10
67	6.81	8.40	9.55	10.31	10.80
68	7.22	8.94	10.20	11.03	11.56
69	7.66	9.52	10.90	11.81	12.37
70	8.12	10.14	11.64	12.63	13.23
71	8.74	10.98	12.61	13.68	14.33
72	9.39	11.89	13.66	14.82	15.52
73	10.10	12.87	14.79	16.05	16.82
74	10.85	13.92	16.01	17.39	18.21
75	11.67	15.06	17.32	18.83	19.73
76	12.54	16.30	18.74	20.37	21.35
77	13.48	17.63	20.28	22.04	23.10
78	14.49	19.08	21.94	23.84	24.99
79	15.58	20.64	23.73	25.80	27.04
80	16.75	22.33	25.68	27.91	29.25
81	18.42	24.56	28.25	30.70	32.18
82	20.10	26.79	30.81	33.49	35.10
83	22.27	29.70	34.15	37.12	38.90
84	24.45	32.60	37.49	40.75	42.71
85+	29.64	39.52	45.45	49.40	51.77

Appendix B2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (2.3% Compound Inflation)	
	Benefit Period	
	10 Years	Life
18-29	2.19	2.34
30	2.19	2.34
31	2.27	2.43
32	2.36	2.52
33	2.44	2.61
34	2.54	2.71
35	2.63	2.81
36	2.73	2.92
37	2.83	3.03
38	2.94	3.14
39	3.05	3.26
40	3.16	3.38
41	3.26	3.48
42	3.36	3.59
43	3.46	3.70
44	3.57	3.81
45	3.68	3.93
46	3.83	4.09
47	3.98	4.25
48	4.14	4.42
49	4.30	4.59
50	4.47	4.77
51	4.69	5.01
52	4.92	5.25
53	5.16	5.51
54	5.41	5.78
55	5.67	6.06
56	6.09	6.51
57	6.54	6.99
58	7.03	7.51
59	7.54	8.07
60	8.09	8.65
61	8.54	9.13
62	9.02	9.65
63	9.52	10.19
64	10.06	10.75
65	10.62	11.35
66	11.36	12.14
67	12.15	12.98
68	12.99	13.88
69	13.89	14.84
70	14.86	15.88
71	16.08	17.18
72	17.39	18.58
73	18.82	20.11
74	20.36	21.75
75	22.03	23.53
76	23.83	25.46
77	25.79	27.55
78	27.90	29.81
79	30.18	32.25
80	32.66	34.89
81	35.92	38.38
82	39.19	41.87
83	43.43	46.40
84	47.68	50.94
85+	57.80	61.75

Appendix C1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base with Shared Cost					ABI Option: (4.4% Compound Inflation) or (5.0% Compound Inflation) with Shared Cost				
	Benefit Period					Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	0.38	0.46	0.49	0.51	0.53	2.22	2.44	2.60	2.71	2.84
30	0.38	0.46	0.49	0.51	0.53	2.22	2.44	2.60	2.71	2.84
31	0.40	0.47	0.50	0.53	0.55	2.29	2.52	2.70	2.81	2.95
32	0.41	0.49	0.52	0.55	0.57	2.36	2.61	2.80	2.92	3.06
33	0.43	0.51	0.54	0.57	0.59	2.43	2.71	2.90	3.03	3.17
34	0.44	0.52	0.56	0.59	0.62	2.51	2.80	3.00	3.14	3.29
35	0.46	0.54	0.58	0.61	0.64	2.59	2.90	3.11	3.26	3.41
36	0.47	0.56	0.60	0.63	0.66	2.67	3.00	3.23	3.38	3.54
37	0.49	0.58	0.63	0.66	0.69	2.75	3.11	3.35	3.51	3.68
38	0.51	0.60	0.65	0.68	0.71	2.84	3.22	3.47	3.64	3.81
39	0.53	0.62	0.67	0.71	0.74	2.93	3.33	3.60	3.78	3.96
40	0.55	0.64	0.70	0.73	0.77	3.02	3.45	3.73	3.92	4.11
41	0.58	0.68	0.74	0.78	0.81	3.07	3.54	3.84	4.04	4.23
42	0.61	0.72	0.78	0.82	0.86	3.12	3.63	3.95	4.16	4.36
43	0.64	0.75	0.82	0.87	0.91	3.17	3.72	4.06	4.29	4.49
44	0.67	0.79	0.87	0.92	0.96	3.23	3.82	4.18	4.42	4.63
45	0.70	0.84	0.92	0.97	1.02	3.28	3.92	4.30	4.56	4.77
46	0.75	0.89	0.98	1.04	1.09	3.41	4.06	4.47	4.74	4.96
47	0.79	0.95	1.04	1.10	1.16	3.54	4.21	4.64	4.92	5.16
48	0.85	1.00	1.11	1.18	1.23	3.69	4.37	4.82	5.12	5.36
49	0.90	1.07	1.18	1.25	1.31	3.83	4.53	5.01	5.32	5.58
50	0.96	1.13	1.25	1.33	1.40	3.98	4.70	5.20	5.53	5.80
51	1.02	1.21	1.34	1.43	1.50	4.15	4.92	5.45	5.80	6.08
52	1.09	1.29	1.43	1.53	1.60	4.33	5.15	5.71	6.08	6.38
53	1.16	1.38	1.53	1.64	1.71	4.52	5.39	5.98	6.38	6.69
54	1.23	1.47	1.64	1.75	1.84	4.71	5.64	6.27	6.69	7.01
55	1.31	1.57	1.75	1.87	1.96	4.91	5.90	6.57	7.02	7.36
56	1.43	1.71	1.91	2.04	2.14	5.26	6.32	7.05	7.54	7.90
57	1.55	1.86	2.08	2.23	2.33	5.64	6.77	7.57	8.10	8.42
58	1.69	2.03	2.27	2.43	2.55	6.04	7.26	8.12	8.47	8.72
59	1.83	2.20	2.47	2.63	2.76	6.34	7.68	8.48	8.76	9.03
60	1.99	2.40	2.68	2.82	2.97	6.56	7.95	8.78	9.07	9.34
61	2.18	2.64	2.92	3.07	3.22	6.84	8.28	9.15	9.45	9.73
62	2.37	2.87	3.17	3.34	3.51	7.12	8.63	9.53	9.84	10.14
63	2.58	3.12	3.45	3.63	3.81	7.42	8.99	9.93	10.26	10.56
64	2.80	3.39	3.75	3.95	4.14	7.73	9.36	10.34	10.69	11.01
65	3.05	3.69	4.08	4.29	4.51	8.05	9.76	10.78	11.13	11.47
66	3.32	4.02	4.44	4.68	4.91	8.42	10.20	11.27	11.64	11.99
67	3.62	4.38	4.84	5.10	5.35	8.80	10.66	11.78	12.17	12.53
68	3.94	4.78	5.28	5.56	5.83	9.20	11.15	12.31	12.72	13.10
69	4.30	5.21	5.75	6.05	6.36	9.62	11.65	12.87	13.30	13.70
70	4.69	5.68	6.27	6.60	6.93	10.06	12.18	13.46	13.90	14.32
71	5.26	6.37	7.04	7.41	7.78	10.81	13.17	14.55	15.03	15.48
72	5.90	7.15	7.90	8.32	8.73	11.24	14.23	15.72	16.24	16.73
73	6.52	8.03	8.87	9.34	9.80	11.66	14.87	16.99	17.55	18.08
74	7.15	9.01	9.96	10.48	11.01	12.09	15.51	17.83	18.97	19.54
75	7.61	9.83	11.18	11.77	12.35	12.51	16.15	18.58	20.19	21.12
76	8.01	10.41	11.97	13.01	13.64	12.93	16.80	19.32	21.00	22.01
77	8.42	11.01	12.66	13.76	14.42	13.33	17.44	20.05	21.80	22.84
78	8.82	11.62	13.36	14.52	15.22	13.73	18.07	20.78	22.59	23.67
79	9.23	12.23	14.07	15.29	16.02	14.10	18.69	21.49	23.36	24.48
80	9.64	12.85	14.78	16.06	16.84	14.46	19.28	22.17	24.10	25.25
81	10.60	14.14	16.26	17.67	18.52	15.90	21.21	24.39	26.51	27.78
82	11.57	15.42	17.74	19.28	20.20	17.35	23.13	26.60	28.92	30.30
83	12.82	17.09	19.66	21.37	22.39	19.23	25.64	29.48	32.05	33.59
84	14.07	18.76	21.58	23.45	24.58	21.11	28.15	32.37	35.18	36.87
85+	17.06	22.75	26.16	28.43	29.80	25.59	34.12	39.24	42.65	44.70

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base with Shared Cost		ABI Option: (4.4% Compound Inflation) or (5.0% Compound Inflation) with Shared Cost	
	Benefit Period		Benefit Period	
	10 Years	Life	10 Years	Life
18-29	0.76	0.81	3.69	3.94
30	0.76	0.81	3.69	3.94
31	0.79	0.84	3.82	4.09
32	0.82	0.87	3.97	4.24
33	0.85	0.90	4.12	4.40
34	0.88	0.94	4.27	4.56
35	0.91	0.97	4.43	4.74
36	0.95	1.01	4.60	4.91
37	0.98	1.05	4.77	5.10
38	1.02	1.09	4.95	5.29
39	1.06	1.13	5.14	5.49
40	1.10	1.17	5.33	5.69
41	1.16	1.24	5.49	5.87
42	1.23	1.31	5.66	6.05
43	1.30	1.39	5.83	6.23
44	1.38	1.47	6.01	6.42
45	1.46	1.56	6.20	6.62
46	1.55	1.66	6.44	6.88
47	1.65	1.77	6.70	7.16
48	1.76	1.88	6.96	7.44
49	1.87	2.00	7.24	7.73
50	2.00	2.13	7.53	8.04
51	2.14	2.28	7.89	8.43
52	2.29	2.44	8.28	8.84
53	2.45	2.62	8.68	9.28
54	2.62	2.80	9.11	9.73
55	2.81	3.00	9.55	10.20
56	3.06	3.27	10.26	10.96
57	3.32	3.56	11.02	11.77
58	3.57	3.88	11.84	12.65
59	3.84	4.23	12.31	13.52
60	4.12	4.58	12.74	13.99
61	4.48	4.98	13.27	14.58
62	4.88	5.41	13.83	15.19
63	5.30	5.88	14.40	15.82
64	5.76	6.39	15.01	16.38
65	6.27	6.95	15.63	16.83
66	6.83	7.58	16.35	17.50
67	7.44	8.26	17.03	18.19
68	8.11	9.00	17.68	18.89
69	8.84	9.81	18.34	19.59
70	9.63	10.69	19.00	20.30
71	10.82	12.00	19.90	21.26
72	11.99	12.81	20.81	22.24
73	12.76	13.63	21.74	23.23
74	13.55	14.48	22.68	24.23
75	14.38	15.36	23.62	25.24
76	15.23	16.27	24.57	26.25
77	16.10	17.20	25.50	27.25
78	16.99	18.15	26.43	28.23
79	17.89	19.11	27.33	29.20
80	18.80	20.08	28.19	30.12
81	20.68	22.09	31.01	33.13
82	22.55	24.10	33.83	36.15
83	25.00	26.71	37.50	40.06
84	27.44	29.32	41.16	43.98
85+	33.27	35.54	49.90	53.31

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (2.5% Compound Inflation) or (3.3% Compound Inflation) with Shared Cost				
	Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	1.29	1.42	1.51	1.58	1.65
30	1.29	1.42	1.51	1.58	1.65
31	1.33	1.47	1.57	1.63	1.71
32	1.37	1.52	1.63	1.70	1.78
33	1.42	1.57	1.68	1.76	1.84
34	1.46	1.63	1.75	1.83	1.91
35	1.51	1.69	1.81	1.89	1.98
36	1.55	1.74	1.88	1.97	2.06
37	1.60	1.81	1.95	2.04	2.14
38	1.65	1.87	2.02	2.12	2.22
39	1.70	1.94	2.09	2.20	2.30
40	1.75	2.00	2.17	2.28	2.39
41	1.78	2.06	2.23	2.35	2.46
42	1.81	2.11	2.30	2.42	2.54
43	1.84	2.16	2.36	2.49	2.61
44	1.88	2.22	2.43	2.57	2.69
45	1.91	2.28	2.50	2.65	2.78
46	1.98	2.36	2.60	2.75	2.89
47	2.06	2.45	2.70	2.86	3.00
48	2.14	2.54	2.80	2.98	3.12
49	2.23	2.64	2.91	3.09	3.24
50	2.32	2.73	3.02	3.22	3.37
51	2.42	2.86	3.17	3.37	3.54
52	2.52	2.99	3.32	3.54	3.71
53	2.63	3.13	3.48	3.71	3.89
54	2.74	3.28	3.65	3.89	4.08
55	2.86	3.43	3.82	4.08	4.28
56	3.06	3.67	4.10	4.38	4.59
57	3.28	3.94	4.40	4.71	4.94
58	3.51	4.22	4.72	5.06	5.30
59	3.76	4.52	5.07	5.43	5.70
60	4.03	4.85	5.44	5.84	6.12
61	4.23	5.11	5.74	6.17	6.47
62	4.45	5.38	6.07	6.52	6.83
63	4.67	5.68	6.40	6.89	7.22
64	4.91	5.98	6.76	7.28	7.63
65	5.15	6.31	7.14	7.69	8.06
66	5.47	6.72	7.63	8.24	8.63
67	5.80	7.16	8.16	8.82	9.24
68	6.16	7.63	8.72	9.44	9.90
69	6.53	8.13	9.32	10.11	10.60
70	6.93	8.66	9.96	10.83	11.35
71	7.46	9.38	10.79	11.73	12.29
72	8.03	10.16	11.69	12.71	13.32
73	8.64	11.01	12.66	13.76	14.42
74	9.30	11.93	13.72	14.91	15.63
75	10.01	12.92	14.86	16.15	16.93
76	10.77	14.00	16.10	17.50	18.34
77	11.60	15.16	17.44	18.96	19.87
78	12.48	16.43	18.89	20.53	21.52
79	13.43	17.80	20.46	22.24	23.31
80	14.46	19.28	22.17	24.10	25.25
81	15.90	21.21	24.39	26.51	27.78
82	17.35	23.13	26.60	28.92	30.30
83	19.23	25.64	29.48	32.05	33.59
84	21.11	28.15	32.37	35.18	36.87
85+	25.59	34.12	39.24	42.65	44.70

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (1.5% Compound Inflation) or (2.3% Compound Inflation) with Shared Cost	
	Benefit Period	
	10 Years	Life
18-29	1.84	1.97
30	1.84	1.97
31	1.91	2.04
32	1.98	2.12
33	2.06	2.20
34	2.14	2.28
35	2.22	2.37
36	2.30	2.46
37	2.39	2.55
38	2.48	2.64
39	2.57	2.74
40	2.66	2.85
41	2.75	2.93
42	2.83	3.02
43	2.92	3.12
44	3.01	3.21
45	3.10	3.31
46	3.22	3.44
47	3.35	3.58
48	3.48	3.72
49	3.62	3.87
50	3.76	4.02
51	3.95	4.22
52	4.14	4.42
53	4.34	4.64
54	4.55	4.86
55	4.77	5.10
56	5.13	5.48
57	5.51	5.89
58	5.92	6.32
59	6.36	6.79
60	6.83	7.30
61	7.22	7.71
62	7.63	8.15
63	8.06	8.61
64	8.52	9.10
65	9.00	9.62
66	9.64	10.30
67	10.32	11.02
68	11.05	11.80
69	11.83	12.64
70	12.67	13.53
71	13.72	14.66
72	14.87	15.88
73	16.10	17.21
74	17.45	18.64
75	18.90	20.19
76	20.47	21.87
77	22.18	23.69
78	24.02	25.67
79	26.03	27.81
80	28.19	30.12
81	31.01	33.13
82	33.83	36.15
83	37.50	40.06
84	41.16	43.98
85+	49.90	53.31

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Supporting Document Schedules

Satisfied - Item:	Certification of Compliance
Comments:	
Attachment(s):	Pre-RS VIRGINA COMPLIANCE CERTIFICATEv2.pdf
Item Status:	Received & Acknowledged
Status Date:	03/24/2017

Bypassed - Item:	Product Checklist
Bypass Reason:	Not applicable to this rate filing.
Attachment(s):	
Item Status:	Received & Acknowledged
Status Date:	03/24/2017

Satisfied - Item:	L&H Actuarial Memorandum
Comments:	
Attachment(s):	Revised GLTC 1997 actuarial memo.pdf Care Choice Filing Package - VA Pre-RS.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Long Term Care Insurance Rate Request Summary
Comments:	
Attachment(s):	GLTC Appendix 1.pdf Pre-RS VA Summary.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Cover letter
Comments:	
Attachment(s):	VA PRE-RS_GLTC Cover Letter RATES only .pdf
Item Status:	Received & Acknowledged
Status Date:	03/24/2017

Satisfied - Item:	3/22/2018 response to 3/24/2017 objection
Comments:	

State:	*Virginia*	**Filing Company:**	*John Hancock Life Insurance Company (USA)*
TOI/Sub-TOI:	*LTC03G Group Long Term Care/LTC03G.001 Qualified*		
Product Name:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing*		
Project Name/Number:	*VA 2016 GLTC In force Rate Filing - Pre-RS filing/*		

Attachment(s):	#9 VA CareChoice loss ratio exhibit.pdf #9 VA GLTC1997 loss ratio exhibit.pdf #10 VA CareChoice loss ratio exhibit.pdf #13 VA Pre-RS GLTC1997 loss ratio exhibit_adj res.pdf 2017-3-24 VA Pre RS Response.pdf #3 VA CareChoice loss ratio exhibit since inception.pdf #3 VA GLTC1997 loss ratio exhibit since inception.pdf #6 VA CareChoice loss ratio exhibit by interest rate.pdf #6 VA GLTC1997 loss ratio exhibit by interest rate.pdf #10 VA GLTC1997 loss ratio exhibit.pdf #13 VA Pre-RS CareChoice loss ratio exhibit_adj res.pdf 2013 Long Term Care Morbidity Final.pdf Pre-RS Demonstration Rate Increase Needed.pdf Understanding_Premium_Rate_Increases_on_Private_ LTCI_Policyholders_060216.pdf 2016 Rate Increase Filing Summary 03142018.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Rate Increase Filing Summary
Comments:	
Attachment(s):	2016 Rate Increase Filing Summary_Pre-RS.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Response to 10/17/18 objection
Comments:	
Attachment(s):	2018-10-17 VA Pre RS Response.pdf 2016 Rate Increase Filing Summary_Pre RS.xlsx Incurred claims counts_Pre RS.xlsx LTCI_Considerations_103118.pdf Revised GLTC 1997 actuarial memo.pdf VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx VA GLTC1997 Loss Ratio Exhibit splits.xlsx Approaches to LTC Rate Increases Final from Pricing Subgroup.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	1/9/2019 response to 11/30/2018 objection letter
Comments:	
Attachment(s):	2018-11-30 VA Pre RS Response.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Sample Certificateholder notification letters
Comments:	
Attachment(s):	JHLTC-2435.pdf JHLTC-2435_FPO_VA final.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Approved Policy Forms Listings
Comments:	Please see the attached listings of forms which comprise our 1997 and 2002 Group Policies. Therefore, we have removed the individually listed forms and repetitive rate files under the Rate/Rule Schedule tab.
Attachment(s):	VA FORMS LIST FOR 1997 PLAN.pdf VA FORMS LIST FOR 2002 PLAN.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	2/20/2019 Response to 2/11/2019 and 2/12/2019 objections
Comments:	
Attachment(s):	2019-2-11 & 2019-2-12 VA Pre RS Response.pdf VA GLTC 1997 Appendix E.pdf VA Care Choice Appendix E.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	5/23/2019 Shared Cost Cover Letter
Comments:	
Attachment(s):	VA 05-22-2019 Shared Cost Cover Letter_Pre RS.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Satisfied - Item:	Response to 7/2/2019 objection letter
Comments:	
Attachment(s):	VA 7-2-19 Objection Response GLTC Pre RS.pdf
Item Status:	Received & Acknowledged
Status Date:	07/03/2019

Attachment 2016 Rate Increase Filing Summary_Pre RS.xlsx is not a PDF document and cannot be reproduced here.

Attachment Incurred claims counts_Pre RS.xlsx is not a PDF document and cannot be reproduced here.

Attachment VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx is not a PDF document and cannot be reproduced here.

Attachment VA GLTC1997 Loss Ratio Exhibit splits.xlsx is not a PDF document and cannot be reproduced here.

VIRGINA COMPLIANCE CERTIFICATE

I hereby certify that I have reviewed the attached individual long-term care filing and to the best of my knowledge and belief, each form submitted is consistent and complies with the requirements of Title 38.2 of the Code of Virginia and the regulations promulgated pursuant thereto.

(Signed by Officer of Company)

Marie Roche
Assistant Vice President
US Insurance Contracts and Legislative Services
John Hancock Life Insurance Company (U.S.A.)
1-888-877-6075
Email: mroche@jhancock.com

Date: March 9, 2017

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Group Long-Term Care Policy Series
November 19, 2018

Product Name	Form Number	Issue Date Range
Group Long Term Care	GPB-COV-0002	December 1998 - June 2012

1. Scope & Purpose

This memorandum consists of materials which support the development of new premium rates for the above captioned Policy series forms, for certificates issued with the rates that were accepted by your state. The purpose of this memorandum is to demonstrate that the requirements of this State in regards to an in force rate increase request have been met. This rate filing is not intended to be used for any other purpose.

2. Benefit Description

A brief policy description for the certificate form:

GPB-COV-0002
This is a Group Long-Term Care plan that pays benefits to the certificate holder insured for the following covered care or services provided to the insured:

- Confinement in a Nursing Home or Alternate Care Facility for room, board and care services;
- Home Health Care; Hospice Care, Respite Care; or
- Attendance at an Adult Day Care Center providing Adult Day Care.

It is intended to be a Qualified Long-Term Care Insurance contract under the Federal Internal Revenue Code.

The benefit trigger is determined based on the insured's cognitive impairment or his requiring substantial assistance to perform two out of six activities of daily living (ADLs) of bathing, dressing, eating, toileting, transferring and maintaining continence. The insured must be certified to be chronically ill by a licensed health care practitioner.

Long-Term Care Benefits are paid at 100% of the actual charges for each day of care after the qualification period up to:

Nursing Home (NH) Care:

(a) the Nursing Home Daily Maximum Benefit (NH DMB) elected for care received in a NH, or

Home Health / Adult Day Care:

(b) the Home Health DMB elected for covered services received in a community setting (including home health care, adult day care and hospice care provided outside a NH, hospice facility or alternate care facility) or

Alternate Care Facility (ACF):

(c) the ACF DMB elected for covered services received in an ACF, or

Informal Care:

(d) the Informal Care DMB elected up to the number of days per calendar year elected for covered Informal Care services (custodial or homemaker services provided by a person without professional skills).

Benefits are payable until the Lifetime Maximum Benefit (LMB) is reached. Benefits are coordinated with Medicare as well as with any other Group certificate coverages.

3. Renewability

Certificates under this policy form have a guaranteed renewable clause.

4. Applicability

This filing is applicable to inforce policies and to new certificates enrolling in this policy series. The premium changes will apply to the base forms as well as all applicable optional benefits upon the expiration of any applicable group policy rate guarantees.

5. Actuarial Assumptions

Morbidity

The morbidity assumptions are derived from our own experience, following a comprehensive claim study recently completed. The study has been peer reviewed both internally as well as by an Independent third party.

Our claims projections include 12 years of future morbidity improvements at 1.1% per year.

Below are currently expected sample annual claim costs for a GPB-COV-0002 policy, $10 daily benefit, and 5yr LMB:

Issue Age 45		
Age	**FPO**	**ABI**
45	4.39	6.32
50	4.43	7.91
55	6.09	13.29
60	6.81	16.35
65	11.70	34.85
70	21.71	78.97
75	58.95	271.07
80	147.24	854.24
85	314.23	2,254.50

Issue Age 50		
Age	**FPO**	**ABI**
50	5.47	7.80
55	6.89	12.13
60	8.15	16.04
65	15.70	38.03
70	33.44	98.54
75	89.83	333.37
80	215.09	1,005.01
85	394.43	2,280.14

Issue Age 60		
Age	**FPO**	**ABI**
60	7.49	9.72
65	15.07	24.10
70	35.72	68.18
75	99.34	234.30
80	243.40	715.37
85	443.63	1,601.82

Voluntary Lapses

The voluntary lapse rates are also based on our own experience:

In addition to the lapse rates shown below, we assume an additional 1.1% lapse rate due to the rate increase.

Guaranteed Issue:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	18.7%	10.8%	8.8%	7.4%	6.8%	7.0%	7.0%	7.0%	7.0%
2	16.0%	9.4%	7.4%	5.9%	5.4%	5.4%	5.4%	5.4%	5.4%
3	12.4%	7.0%	6.5%	4.9%	4.0%	3.8%	3.8%	3.8%	3.8%
4	10.5%	6.3%	5.7%	4.3%	3.4%	3.0%	3.0%	3.0%	3.0%
5	8.9%	5.6%	5.0%	3.8%	3.0%	2.4%	2.4%	2.4%	2.4%
6	7.5%	5.0%	4.4%	3.3%	2.6%	1.9%	1.9%	1.9%	1.9%
7	6.3%	4.4%	3.8%	2.9%	2.2%	1.5%	1.5%	1.5%	1.5%
8	5.3%	3.9%	3.3%	2.5%	1.9%	1.2%	1.2%	1.2%	1.2%
9	4.8%	3.6%	3.0%	2.3%	1.7%	1.0%	1.0%	1.0%	1.0%
10	4.7%	3.3%	2.7%	2.1%	1.5%	0.8%	0.8%	0.8%	0.8%
11	4.3%	3.0%	2.4%	1.9%	1.4%	0.6%	0.6%	0.6%	0.6%
12	3.7%	2.7%	2.1%	1.6%	1.2%	0.5%	0.5%	0.5%	0.5%
13	3.3%	2.4%	1.8%	1.4%	1.0%	0.5%	0.5%	0.5%	0.5%
14	3.0%	2.2%	1.6%	1.3%	0.9%	0.5%	0.5%	0.5%	0.5%
15	2.7%	1.9%	1.4%	1.1%	0.8%	0.5%	0.5%	0.5%	0.5%
16	2.4%	1.7%	1.2%	1.0%	0.7%	0.5%	0.5%	0.5%	0.5%
17	2.2%	1.5%	1.1%	0.9%	0.6%	0.5%	0.5%	0.5%	0.5%
18	2.0%	1.4%	0.9%	0.8%	0.5%	0.5%	0.5%	0.5%	0.5%
19	1.8%	1.2%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
20	1.6%	1.1%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
21	1.4%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
22	1.3%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
23	1.2%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
24	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
25+	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%

Fully Underwritten:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	10.3%	5.8%	4.7%	3.4%	2.9%	3.0%	3.7%	3.0%	3.0%
2	8.4%	4.8%	4.0%	2.9%	2.4%	2.1%	2.4%	1.8%	1.8%
3	7.2%	4.6%	3.4%	2.8%	2.0%	1.7%	1.4%	1.4%	1.4%
4	6.2%	4.0%	2.9%	2.3%	1.7%	1.3%	1.1%	1.1%	1.1%
5	5.4%	3.5%	2.5%	2.0%	1.4%	1.1%	0.9%	1.0%	1.0%
6	4.6%	3.0%	2.2%	1.7%	1.2%	0.8%	0.7%	0.8%	0.8%
7	4.0%	2.6%	1.9%	1.4%	1.0%	0.7%	0.4%	0.7%	0.7%
8	3.4%	2.3%	1.6%	1.2%	0.9%	0.5%	0.4%	0.5%	0.5%
9	2.9%	2.0%	1.4%	1.0%	0.7%	0.4%	0.4%	0.5%	0.5%
10	2.7%	1.7%	1.3%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
11	2.4%	1.5%	1.1%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
12	2.3%	1.3%	0.8%	0.6%	0.5%	0.4%	0.4%	0.5%	0.5%
13	2.1%	1.2%	0.7%	0.6%	0.4%	0.4%	0.4%	0.5%	0.5%
14	2.0%	1.0%	0.6%	0.5%	0.4%	0.4%	0.4%	0.5%	0.5%
15	1.8%	0.9%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
16	1.7%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
17	1.6%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
18	1.4%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
19	1.3%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
20	1.2%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
21	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
22	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
23	1.0%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
24	0.9%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
25+	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%

Mortality

The mortality rates have also been derived based on our own experience within our retail and group long-term care block of business.

The base mortality table is the unloaded 1994 Group Annuity Mortality Table, sex-distinct, with 19 years of historical improvements based on scale AA. We then apply the following series of adjustment factors which vary by underwriting class and gender:

Fully Underwritten:

Policy Duration	Issue Age			
	< = 55	65	75	> = 82
1	33.3%	19.0%	19.0%	28.5%
2	36.1%	21.9%	25.7%	33.3%
3	39.0%	24.7%	32.3%	38.0%
4	40.9%	27.6%	39.0%	42.8%
5	42.8%	31.4%	45.6%	47.5%
6	44.7%	36.1%	52.3%	52.3%
7	46.6%	41.8%	55.1%	57.0%
8	48.5%	48.5%	58.0%	61.8%
9	50.4%	55.1%	60.8%	66.5%
10	51.3%	61.8%	63.7%	71.3%
11	52.3%	64.6%	69.4%	76.0%
12	53.6%	66.5%	75.1%	80.8%
13	54.9%	67.5%	77.9%	85.5%
14	56.2%	68.5%	80.8%	90.3%
15	57.4%	69.7%	83.6%	95.0%
16	58.7%	71.1%	85.5%	95.0%
17	60.0%	72.5%	86.9%	95.0%
18	61.3%	74.0%	88.5%	95.0%
19	62.6%	75.4%	90.1%	95.0%
20	63.9%	76.9%	92.2%	95.0%
21	65.6%	78.4%	95.0%	95.0%
22	67.5%	80.1%	95.0%	95.0%
23	69.4%	81.7%	95.0%	95.0%
24	72.2%	83.4%	95.0%	95.0%
25	76.0%	85.1%	95.0%	95.0%
26	79.8%	86.7%	95.0%	95.0%
27	83.6%	88.4%	95.0%	95.0%
28	87.4%	90.0%	95.0%	95.0%
29	91.2%	91.7%	95.0%	95.0%
30+	95.0%	95.0%	95.0%	95.0%

Guaranteed Issue Male:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	133.0%	76.0%	52.3%	65.6%	95.0%
2	129.2%	75.1%	53.2%	67.5%	95.0%
3	125.4%	74.1%	54.2%	70.3%	95.0%
4	121.6%	73.2%	55.1%	73.2%	95.0%
5	117.8%	72.2%	57.0%	76.0%	95.0%
6	115.0%	70.3%	58.9%	79.8%	95.0%
7	112.1%	68.4%	60.8%	83.6%	95.0%
8	109.3%	64.6%	61.8%	87.4%	95.0%
9	106.4%	60.8%	62.7%	91.2%	95.0%
10	103.6%	57.0%	63.7%	95.0%	95.0%
11	100.7%	53.2%	65.6%	95.0%	95.0%
12	98.8%	54.2%	67.5%	95.0%	95.0%
13	96.9%	55.1%	70.3%	95.0%	95.0%
14	95.0%	57.0%	73.2%	95.0%	95.0%
15	91.2%	58.0%	76.0%	95.0%	95.0%
16	88.8%	59.5%	80.6%	96.0%	96.0%
17	86.8%	62.1%	85.4%	97.0%	97.0%
18	85.2%	63.7%	90.2%	98.0%	98.0%
19	83.9%	65.3%	95.0%	99.0%	99.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Guaranteed Issue Female:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	154.0%	88.0%	60.5%	75.9%	110.0%
2	149.6%	86.9%	61.6%	78.1%	110.0%
3	145.2%	85.8%	62.7%	81.4%	110.0%
4	140.8%	84.7%	63.8%	84.7%	110.0%
5	136.4%	83.6%	66.0%	88.0%	110.0%
6	133.1%	81.4%	68.2%	92.4%	110.0%
7	129.8%	79.2%	70.4%	96.8%	110.0%
8	126.5%	74.8%	71.5%	101.2%	110.0%
9	123.2%	70.4%	72.6%	105.6%	110.0%
10	119.9%	66.0%	73.7%	110.0%	110.0%
11	116.6%	61.6%	75.9%	110.0%	110.0%
12	114.4%	62.7%	78.1%	110.0%	110.0%
13	112.2%	63.8%	81.4%	110.0%	110.0%
14	110.0%	66.0%	84.7%	110.0%	110.0%
15	105.6%	67.1%	88.0%	110.0%	110.0%
16	99.9%	67.0%	90.7%	108.0%	108.0%
17	94.8%	67.8%	93.3%	106.0%	106.0%
18	90.4%	67.6%	95.7%	104.0%	104.0%
19	86.4%	67.3%	97.9%	102.0%	102.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Factors for ages not listed above are interpolated.

We are also projecting 12 years of future mortality improvement based on scale AA, consistent with the 12 years of future morbidity improvement in our future claim projections.

Expenses

Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

6. Trend Assumptions

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

7. Marketing Method

The employees and other eligibles were marketed through the Employer, Union or Association as part of their corporate sponsored employee benefits package with the support of John Hancock representatives and direct mail.

8. Underwriting

Actively at Work employees were generally offered coverage on a Guaranteed Acceptance basis during limited enrollment periods. Other eligibles were underwritten using either simplified (short form) or full underwriting.

9. Premium Classes

The base policy premium rates vary by Issue age, LMB, and Inflation Option, as in the initial rate filing.

All premium factors related to the insured elected benefit design options, case size, commissions, or underwriting risk class remain unchanged from the initial rate filing, with the following exception: There was a 20% load on post issue date optional coverage increases to the insured's DMB. Our current new business rates do not include this load on post issue date option coverage. To maintain consistency with our current new business pricing, both the past and future optional coverage increases will no longer be loaded by 20%.

10. Premium Modalization Rules

Premiums are payable through payroll deduction, direct bill or automatic bank withdrawal. Monthly premium rates are illustrated in Appendices A, B, and C. The following factors are used to illustrate other modes, if applicable.

Frequency	Multiple of Monthly Premium
Monthly	1
Quarterly	3
Semi-annual	6
Annual	12

11. Issue Age Range

The issue age range is 18+ for all policy forms.

12. Area Factors

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

13. Average Annual Premium

The table below summarizes the average annual premium per certificate before and after the requested increase.

	Nationwide	Virginia	
Form	before the rate increase	before the rate increase	after the rate increase
GPB-COV-0002	1,140	1,130	1,225

14. Number of Certificate Holders

The table below summarizes, as of 12/31/2015, the number of certificates inforce and their 2015 annualized premium that will be affected by this rate increase in your state.

Form	Number of Certificates	2015 Annualized Premium
GPB-COV-0002	940	1,065,000

15. Reserves

Active Life Reserves have not been used in this rate increase demonstration. Minimum Statutory Claim reserves as of 12/31/2015 have been discounted to the date of incurral of each respective claim and included in the historical incurred claims. Incurred But Not Reported claim reserves as of 12/31/2015 have also been allocated to the calendar year of incurral and included in historic incurred claims.

16. Requested Rate Increase

The Company is requesting an average rate increase of 8.4%, which ranges from -5.4% to 13.5%. Rate increases were derived as follows:

1. The Company first determined the projected lifetime loss ratio for this form based on nationwide actual experience and projected future experience assuming all prior rate increase requests were approved in full and within three months of the original filing date. We then determined that an average rate increase amount of 8.4%, ranging from -5.3% to 13.5% (see Section 9 on why 20% load was removed on post issue date optional coverage increases to the insured's DMB), would be needed in order to revert to the lifetime loss ratio certified to in our 2010 inforce rate increase filing for this form.
2. We are no longer selling new business under this policy form, but we ensured that the proposed rate increases did not result in premium rates that exceed what could be reasonably estimated as new business rates for our Group forms. We determined such rates by applying a series of factors to the P-FACE(2009) policy form premium rates (which were the last set of Group LTC premium rates that were sold). One factor applied to P-FACE(2009) premium rates was a ratio of the most recent Traditional Retail premium rates filed in the Interstate Compact prior to Performance LTC (ICC12-LTC-12, filed in 2014) relative to the Retail LTC rates filed in 2010 (LTC-03). This was done because we believe that if new business for Group Long-Term Care was still being sold, premium rates would have increased by a comparable amount to our Retail business since 2010. Rates were increased by an additional 9.5% across the board, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016 since a 2016 experience study showed a need to raise rates by 9.5%. There is no impact to our proposed rate increase since our proposed premium rates fall below our assumed new business rates. These rates were then further adjusted for benefit differences and changes in underwriting guidelines and

risk classification (this is demonstrated in **Appendix A**). After the application of this restriction the average rate increase for the forms listed in this memo is 8.4%, ranging from -5.4% to 13.5%.

3. We ensured that the resulting overall increase in rates satisfied the rate stability rule ensuring no less than an 85% loss ratio on the rate increase portion, while applying the original loss ratio on the original rate schedule (as the original loss ratio was higher than 58%). This is demonstrated at the bottom of **Exhibit 1** where it can be seen that the sum of past and future projected incurred claims is not less than the sum of the original premium times the original loss ratio and the rate increase premium times the 85% loss ratio requirement.

Note that as shown at the bottom of Exhibit 1b, by requesting the current rate increase, we are complying with Virginia state regulation where the post rate increase future loss ratio (adjusted for Net Level Premium Reserves) is no less than 60% under original pricing interest rate assumption.

In **Appendix A** we reflect the proposed premium rates both with and without any additional cost as we believe any cost due to delayed implementation should not be subject to the new business rate restrictions.

Appendix B1 contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did not* elect an inflation reduction option as part of the 2010 rate increase filings. **Appendix B2** contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did* elect an inflation reduction option as part of the 2010 rate increase filings. Please note that the actual rates implemented may vary slightly from those in Appendices B1 and B2 due to implementation rounding algorithms.

Some of our older group clients have certificates inforce under different policy forms, having opted for upgrading their pre-existing employee benefit plan to a new plan covered under a newer policy form. In those situations, we have offered internal replacement (plan upgrade) opportunities to existing certificate holders, whereby a certificate holder may have elected to lapse their original coverage and purchase the new plan coverage as a replacement. In those situations, the insured would be subject to the attained age (at the time of the replacement) premium rates for their new coverage but in some situations we would provide a premium credit to recognize the premium they had paid since their issue age for their original coverage under the prior plan. For these insureds, we will determine their new premium rate based on their historical original issue ages respectively for each layer of coverage. In a situation where the resulting rate increases are greater than those listed in Appendix A for their coverage, we will continue to offer them a premium credit in order to limit their respective rate increases to the amounts listed in Appendix A.

For those group clients that transferred to us from an external carrier, we will continue to recognize any assets transferred from the prior carrier. We will continue to provide these credits to the insureds within those groups and the rate increase will be calculated based on the insureds' net premium rate.

17. Analysis Performed

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

The original pricing assumptions for morbidity, voluntary termination rates, and mortality were as follows:

Morbidity

In developing claim cost assumptions, reference was made to the 1985 National Nursing Home Survey (TSA, 88-90 Reports), the 1982 and 1984 National Long-Term Care Surveys, the Channeling Demonstration, and the 1987 National Medical Expenditure Survey.

Below are the original sample annual claim costs for a GPB-COV-0002 policy, $10 daily benefit, and 5yr LMB:

Issue Age 45		
Age	**FPO**	**ABI**
45	7.29	8.11
50	5.91	8.38
55	8.92	16.19
60	12.53	28.98
65	23.03	67.08
70	46.75	171.82
75	89.96	419.63
80	186.77	1,106.87
85	361.30	2,725.70
90	647.45	6,216.95

Issue Age 50		
Age	FPO	ABI
50	6.84	7.61
55	8.79	12.51
60	12.36	22.39
65	22.71	51.82
70	46.09	132.74
75	88.70	324.20
80	184.16	855.14
85	356.25	2,105.81
90	638.40	4,803.06

Issue Age 60		
Age	FPO	ABI
60	13.63	15.16
65	22.01	30.84
70	44.67	78.99
75	85.97	192.91
80	178.49	508.83
85	345.29	1,253.01
90	618.76	2,857.94

Voluntary Terminations

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

Duration	All Issue Ages
1	8.00%
2	6.00%
3	4.00%
4+	3.50%

Mortality

Pricing mortality rates were calculated as a 67% female / 33% male combination of the 1975-80 Basic Mortality Table:

Duration	Selection Factor
1	50.0%
2	80.0%

The following tables show in aggregate how our new assumptions (excluding the moderately adverse margin) compare to actual experience:

Morbidity

Experience period: Inception through 9/30/2012 for incidence, inception through 9/30/2011 for claim terminations and salvage

The following charts show key experience compared to revised assumptions.

Incidence

Duration	A/E
1-3	114%
4-6	106%
7-9	99%
10+	100%
Total	**102%**

Claim Terminations

Continuance	A/E
Total	**99%**

Salvage

Amount Paid	A/E
Total	**103%**

While we usually complete triennial studies, we found that our quarterly morbidity A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

Voluntary Lapses

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1	73%	100%
2	72%	101%
3-5	84%	97%
6-10	93%	103%
11+	100%	100%
Total	**85%**	**100%**

We increased ultimate lapse rates slightly (in the range of 0.1% to 0.2%), consistent with experience, which slightly lowered the loss ratio.
Note that we are no longer selling Group business. Early durations are no longer applicable.

Mortality

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1-5	118%	105%
6-10	105%	104%
11-15	92%	101%
16+	98%	94%
Total	**100%**	**101%**

While we usually complete triennial studies, we found that our quarterly termination A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 99%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

18. Experience – Past & Future

Exhibit 1 contains nationwide past premium and claims experience and future premium and claim projections and illustrates that the anticipated lifetime loss ratio with the requested rate increase is 80.1%, well in excess of the minimum loss ratio of 60% as well as greater than the original pricing loss ratio of 77.6%. The lifetime loss ratio as of 12/31/2015 is calculated as the sum of accumulated past and discounted future claims divided by the sum of accumulated past and discounted future earned premium where accumulation and discounting occur at the maximum statutory valuation discount rate. In Exhibit 1, the proposed rate increase is applied historically (starting in calendar year 2012). Please refer to the cover letter for background on this modeling assumption.

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

Furthermore, **Exhibit 1** demonstrates that that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

1. Accumulated value of the initial earned premium times the original assumed lifetime loss ratio (which was higher than 58%),
2. 85% of the accumulated value of prior premium rate schedule increases,
3. Present value of future projected initial earned premium times the original assumed lifetime loss ratio, and
4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

Note that rate increases will only apply once the applicable group policy rate guarantee has expired.

19. History of Previous Rate Revisions

There was a rate increase requested in 2010 on this plan. However, because it only impacted certain benefit periods and inflation options, no certificate holders sitused in your state were impacted. Because the loss ratio is based on nationwide data and all benefit period/inflation options, we have assumed for the purposes of this filing that the 2010 rate increase was approved on time and in full by every state.

20. Ensuring No Cross-Subsidization Between States

We have ensured no state's rate increase approvals will subsidize other states' experience. Rate increases will vary by state, but only to reflect the timing and amount of prior rate increases approved by that state. This is accomplished by first backing-out all prior rate increases from our nationwide premium data. We then re-introduce prior rate increases with the amount and timing based on your state's prior approvals (as detailed in Section 19). The current proposed rate increases are then determined based on the amounts needed in order to achieve our target loss ratios where our targets reflect the lifetime loss ratios certified to in our prior filing.

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

21. Past Losses Testing

Preventing companies from recouping past losses was the subject of a recent discussion by the NAIC in late 2013. The accepted methodology, which was incorporated into the 2014 LTC Model Regulation, defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

> Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.

We apply this methodology in **Exhibit 1A**. The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing loss ratio to the actual earned premium in a given calendar year. Later, in years in which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed at that time.

22. Proposed Effective Date

These rates will not be effective until after we have satisfied the required 90 days advance notice to the policyholder and to the insureds.

23. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for rendering this opinion and am familiar with the requirements for filing long-term care insurance premiums and filing for increases in long-term care insurance premiums. This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with applicable laws and regulations of the Commonwealth of Virginia and that the premiums are reasonable in relation to the benefits provided.

The preceding Actuarial Memorandum contains:

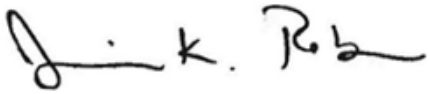
a) the assumptions on which this certification is based;
b) the adjustments to prior assumptions with an explanation of the reasons previous assumptions were not realized;
c) a lifetime projection of the prior premium rate schedules and incurred claims plus future expected premiums and claims which demonstrates that the revised premium rate schedule meets the loss ratios standards and necessary details of this state; and
d) disclosure of the manner, if any, in which reserves have been recognized.

If the requested premium rate schedule increase is implemented and the underlying assumptions are realized, no further premium rate schedule increases are anticipated.

I have reviewed and taken into consideration the policy design and coverage provided, and our current underwriting and claims adjudication processes.

In forming my opinion, I have used actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary. Based on these assumptions or statutory requirements where necessary, the premium rate filing is in compliance with the loss ratio standards of this state.

The basis for contract reserves has been previously filed and there is no anticipation of any changes.



Julie K. Robinson, FSA, MAAA, CFP®
Associate Actuary
John Hancock Life Insurance Company (U.S.A.)

Exhibit 1: Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	-	10,600	0%
	1991	-	-	-	-	13,706	0%	-	13,706	0%
	1992	-	-	-	-	130,947	0%	-	130,947	0%
	1993	24,454	281,316	9%	-	452,593	0%	-	452,593	0%
	1994	27,056	277,767	10%	-	485,283	0%	-	485,283	0%
	1995	30,873	260,385	12%	2,362	529,250	0%	2,362	529,250	0%
	1996	39,951	275,694	14%	-	571,865	0%	-	571,865	0%
	1997	60,502	340,026	18%	1,018	701,676	0%	1,018	701,676	0%
	1998	406,653	2,172,502	19%	1,313,565	2,608,033	50%	1,313,565	2,608,033	50%
	1999	1,375,485	7,817,601	18%	1,187,766	8,837,184	13%	1,187,766	8,837,184	13%
	2000	2,329,223	13,484,244	17%	2,259,297	13,158,860	17%	2,259,297	13,158,860	17%
	2001	2,460,490	14,457,922	17%	1,257,275	14,097,318	9%	1,257,275	14,097,318	9%
	2002	2,722,355	14,703,453	19%	703,751	14,385,372	5%	703,751	14,385,372	5%
	2003	3,210,454	15,177,636	21%	1,915,689	14,975,334	13%	1,915,689	14,975,334	13%
	2004	3,738,588	15,637,115	24%	4,384,408	15,549,321	28%	4,384,408	15,549,321	28%
	2005	4,267,186	16,245,505	26%	2,274,982	16,365,989	14%	2,274,982	16,365,989	14%
Historical	2006	4,751,223	16,735,040	28%	3,412,276	17,134,513	20%	3,412,276	17,134,513	20%
Experience	2007	5,649,022	19,785,983	29%	2,930,445	20,443,071	14%	2,930,445	20,443,071	14%
	2008	6,409,192	21,943,336	29%	5,635,647	22,839,876	25%	5,635,647	22,839,876	25%
	2009	6,996,212	22,353,012	31%	7,391,751	23,661,335	31%	7,391,751	23,661,335	31%
	2010	7,665,257	22,493,869	34%	10,315,052	24,308,205	42%	10,315,052	24,308,205	42%
	2011	8,398,064	22,672,561	37%	7,630,583	24,953,275	31%	7,630,583	24,953,275	31%
	2012	9,218,261	23,074,476	40%	6,353,771	26,492,112	24%	6,353,771	27,774,106	23%
	2013	9,984,633	22,542,561	44%	8,147,104	26,448,191	31%	8,147,104	27,698,829	29%
	2014	10,856,997	22,468,465	48%	11,900,827	27,056,178	44%	11,900,827	28,284,570	42%
	2015	11,838,133	22,923,431	52%	13,947,743	28,200,539	49%	13,947,743	30,519,537	46%
	2016	12,661,559	21,680,735	58%	11,214,553	27,602,710	41%	11,220,309	29,859,942	38%
	2017	13,512,298	20,371,206	66%	12,509,192	26,905,225	46%	12,483,421	28,994,449	43%
Projected	2018	14,391,599	19,138,785	75%	13,987,417	26,210,290	53%	13,865,045	28,033,527	49%
Future	2019	15,281,761	17,954,654	85%	15,622,311	25,510,229	61%	15,492,880	27,283,815	57%
Experience	2020	16,165,566	16,808,883	96%	17,311,273	24,798,055	70%	17,172,676	26,522,137	65%
	2021	17,027,132	15,700,846	108%	18,990,141	24,069,233	79%	18,841,047	25,743,545	73%
	2022	17,898,591	14,631,066	122%	20,762,310	23,320,771	89%	20,600,440	24,944,745	83%
	2023	18,774,991	13,599,651	138%	22,694,873	22,550,279	101%	22,517,544	24,123,068	93%
	2024	19,609,276	12,607,286	156%	24,672,780	21,755,739	113%	24,478,890	23,276,295	105%
	2025	20,407,533	11,654,578	175%	26,641,808	20,935,024	127%	26,430,933	22,402,095	118%
	2026	21,160,319	10,741,716	197%	28,548,959	20,087,362	142%	28,321,274	21,499,556	132%
	2027	21,877,203	9,869,599	222%	30,446,563	19,213,398	158%	30,201,601	20,569,265	147%
	2028	22,542,544	9,039,181	249%	32,511,190	18,314,489	178%	32,246,644	19,612,587	164%
	2029	23,076,050	8,250,828	280%	34,530,123	17,392,660	199%	34,246,252	18,631,572	184%
	2030	23,505,518	7,504,655	313%	36,421,638	16,454,131	221%	36,119,521	17,632,721	205%
	2031	23,823,899	6,801,083	350%	38,197,539	15,504,553	246%	37,878,042	16,621,941	228%
	2032	24,033,545	6,140,524	391%	39,800,770	14,548,784	274%	39,465,275	15,604,289	253%
	2033	24,141,451	5,522,687	437%	40,965,786	13,591,825	301%	40,618,614	14,584,976	278%
	2034	24,080,205	4,947,039	487%	41,703,023	12,639,291	330%	41,348,224	13,569,883	305%
	2035	23,904,347	4,413,346	542%	42,398,520	11,696,804	362%	42,035,745	12,564,928	335%
	2036	23,581,205	3,920,744	601%	42,910,425	10,770,137	398%	42,540,970	11,576,185	367%
	2037	23,141,315	3,468,223	667%	43,081,909	9,865,794	437%	42,708,759	10,610,563	403%
	2038	22,601,899	3,054,533	740%	42,917,195	8,991,267	477%	42,543,355	9,676,089	440%
	2039	21,937,576	2,678,216	819%	42,605,148	8,151,524	523%	42,231,557	8,778,070	481%
	2040	21,201,322	2,338,072	907%	41,989,346	7,350,791	571%	41,618,776	7,921,059	525%
	2041	20,345,058	2,032,473	1001%	40,898,378	6,593,097	620%	40,535,556	7,109,414	570%
	2042	19,397,620	1,758,836	1103%	39,511,068	5,882,084	672%	39,158,716	6,347,086	617%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	135,910,788	451,883,061	30.1%	120,516,105	484,587,308	24.9%	120,516,105	491,139,837	24.5%
	Future :	360,549,501	187,541,196	192.3%	552,393,354	319,578,153	172.9%	547,863,277	342,998,824	159.7%
	Lifetime :	496,460,289	639,424,258	77.6%	672,909,459	804,165,461	83.7%	668,379,382	834,138,661	80.1%

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

			Accum Value of Past Initial Prm x 77.6% =	373,942,349
			Present Value of Future Initial Prm x 77.6% =	238,999,151
Accum. Value of Past Incurred Claims =	120,516,105		Accum Value of Prior Increases x 85.0% =	8,087,403
Present Value of Future Incurred Claims =	547,863,277		Present Value of Future Increases x 85.0% =	29,899,520
Total =	668,379,382	>=	Total =	650,928,423

Exhibit 1A: Pass Losses Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Loss Ratios to Apply to Actual Premium			Adjusted	Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio*	Expected Incurred Claims	Incurred Claims	Earned Premium	Incurred Loss Ratio*	Incurred Claims	Earned Premium	Incurred Loss Ratio*
Original Pricing	1993	24,454	281,316	9%	39,343	0	452,593	0%	0	452,593	0%
	1994	27,056	277,767	10%	47,270	0	485,283	0%	0	485,283	0%
	1995	30,873	260,385	12%	62,751	2,362	529,250	0%	2,362	529,250	0%
	1996	39,951	275,694	14%	82,870	0	571,865	0%	0	571,865	0%
	1997	60,502	340,026	18%	124,852	1,018	701,676	0%	1,018	701,676	0%
	1998	406,653	2,172,502	19%	488,176	1,313,565	2,608,033	50%	1,313,565	2,608,033	50%
	1999	1,375,485	7,817,601	18%	1,554,878	1,187,766	8,837,184	13%	1,187,766	8,837,184	13%
	2000	2,329,223	13,484,244	17%	2,273,017	2,259,297	13,158,860	17%	2,259,297	13,158,860	17%
	2001	2,460,490	14,457,922	17%	2,399,122	1,257,275	14,097,318	9%	1,257,275	14,097,318	9%
	2002	2,722,355	14,703,453	19%	2,663,462	703,751	14,385,372	5%	703,751	14,385,372	5%
	2003	3,210,454	15,177,636	21%	3,167,662	1,915,689	14,975,334	13%	1,915,689	14,975,334	13%
	2004	3,738,588	15,637,115	24%	3,717,598	4,384,408	15,549,321	28%	4,384,408	15,549,321	28%
	2005	4,267,186	16,245,505	26%	4,298,833	2,274,982	16,365,989	14%	2,274,982	16,365,989	14%
	2006	4,751,223	16,735,040	28%	4,864,636	3,412,276	17,134,513	20%	3,412,276	17,134,513	20%
	2007	5,649,022	19,785,983	29%	5,836,625	2,930,445	20,443,071	14%	2,930,445	20,443,071	14%
	2008	6,409,192	21,943,336	29%	6,671,052	5,635,647	22,839,876	25%	5,635,647	22,839,876	25%
	2009	6,996,212	22,353,012	31%	7,405,701	7,391,751	23,661,335	31%	7,391,751	23,661,335	31%
2010 RI	2010	6,050,219	22,647,756	27%	6,493,798	10,315,052	24,308,205	42%	10,315,052	24,308,205	42%
	2011	6,418,138	21,655,787	30%	7,395,416	7,630,583	24,953,275	31%	7,630,583	24,953,275	31%
	2012	7,078,243	21,030,369	34%	8,916,515	6,353,771	26,492,112	24%	6,353,771	27,774,106	23%
	2013	7,769,896	21,211,382	37%	9,688,181	8,147,104	26,448,191	31%	8,147,104	27,698,829	29%
	2014	8,502,663	20,607,456	41%	11,163,414	11,900,827	27,056,178	44%	11,900,827	28,284,570	42%
	2015	9,325,474	20,013,051	47%	13,140,594	13,947,743	28,200,539	49%	13,947,743	30,519,537	46%
Projected Future Experience	2016					11,214,553	27,602,710	41%	11,220,309	29,859,942	38%
	2017					12,509,192	26,905,225	46%	12,483,421	28,994,449	43%
	2018					13,987,417	26,210,290	53%	13,865,045	28,033,527	49%
	2019					15,622,311	25,510,229	61%	15,492,880	27,283,815	57%
	2020					17,311,273	24,798,055	70%	17,172,676	26,522,137	65%
	2021					18,990,141	24,069,233	79%	18,841,047	25,743,545	73%
	2022					20,762,310	23,320,771	89%	20,600,440	24,944,745	83%
	2023					22,694,873	22,550,279	101%	22,517,544	24,123,068	93%
	2024					24,672,780	21,755,739	113%	24,478,890	23,276,295	105%
	2025					26,641,808	20,935,024	127%	26,430,933	22,402,095	118%
	2026					28,548,959	20,087,362	142%	28,321,274	21,499,556	132%
	2027					30,446,563	19,213,398	158%	30,201,601	20,569,265	147%
	2028					32,511,190	18,314,489	178%	32,246,644	19,612,587	164%
	2029					34,530,123	17,392,660	199%	34,246,252	18,631,572	184%
	2030					36,421,638	16,454,131	221%	36,119,521	17,632,721	205%
	2031					38,197,539	15,504,553	246%	37,878,042	16,621,941	228%
	2032					39,800,770	14,548,784	274%	39,465,275	15,604,289	253%
	2033					40,965,786	13,591,825	301%	40,618,614	14,584,976	278%
	2034					41,703,023	12,639,291	330%	41,348,224	13,569,883	305%
	2035					42,398,520	11,696,804	362%	42,035,745	12,564,928	335%
	2036					42,910,425	10,770,137	398%	42,540,970	11,576,185	367%
	2037					43,081,909	9,865,794	437%	42,708,759	10,610,563	403%
	2038					42,917,195	8,991,267	477%	42,543,355	9,676,089	440%
	2039					42,605,148	8,151,524	523%	42,231,557	8,778,070	481%
	2040					41,989,346	7,350,791	571%	41,618,776	7,921,059	525%
	2041					40,898,378	6,593,097	620%	40,535,556	7,109,414	570%
	2042					39,511,068	5,882,084	672%	39,158,716	6,347,086	617%
	2043					38,028,912	5,220,203	728%	37,687,696	5,636,780	669%
	2044					36,523,928	4,608,276	793%	36,193,832	4,979,465	727%
	2045					34,904,419	4,046,394	863%	34,586,610	4,375,355	790%
Value as of 12/31/15*:											
	Past				133,205,149	120,516,105	484,587,308	24.9%	120,516,105	491,139,837	24.5%
	Future					552,393,354	319,578,153	172.9%	547,863,277	342,998,824	159.7%
	Lifetime					672,909,459	804,165,461	83.7%	668,379,382	834,138,661	80.1%

*discounted at maximum statutory valuation rates

Test: Total Incurred Claims exceeds the Total Initial Premiums x Original Pricing Loss Ratio (instead of 58%) + Increased Premiums x 85%

			Accum Value of Past Initial Prm x 77.6% =	373,942,349
Accum Value of Minimum (Past Incurred Claims,			Present Value of Future Initial Prm x 77.6% =	238,999,151
Adjusted Originally Expected Incurred Claims) =	120,516,105		Accum Value of Prior Increases x 85.0% =	8,087,403
Present Value of Future Incurred Claims =	547,863,277		Present Value of Future Increases x 85.0% =	29,899,520
Total =	668,379,382	> =	Total	650,928,423

Exhibit 1b: Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience				
					Before Proposed Increase			With Proposed Rate Increase	
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	10,600	0%
	1991	-	-	-	-	13,706	0%	13,706	0%
	1992	-	-	-	-	130,947	0%	130,947	0%
	1993	22,669	281,316	8%	-	452,593	0%	452,593	0%
	1994	25,189	277,767	9%	-	485,283	0%	485,283	0%
	1995	28,811	260,385	11%	2,193	529,250	0%	529,250	0%
	1996	37,314	275,694	14%	-	571,865	0%	571,865	0%
	1997	56,334	340,026	17%	919	701,676	0%	701,676	0%
	1998	373,334	2,172,502	17%	1,197,010	2,608,033	46%	2,608,033	46%
	1999	1,262,039	7,817,601	16%	1,064,546	8,837,184	12%	8,837,184	12%
	2000	2,128,606	13,484,244	16%	2,014,580	13,158,860	15%	13,158,860	15%
	2001	2,255,732	14,457,922	16%	1,150,909	14,097,318	8%	14,097,318	8%
	2002	2,503,865	14,703,453	17%	639,710	14,385,372	4%	14,385,372	4%
	2003	2,959,247	15,177,636	19%	1,758,729	14,975,334	12%	14,975,334	12%
	2004	3,449,972	15,637,115	22%	3,969,329	15,549,321	26%	15,549,321	26%
	2005	3,941,024	16,245,505	24%	2,076,144	16,365,989	13%	16,365,989	13%
Historical	2006	4,391,987	16,735,040	26%	3,115,422	17,134,513	18%	17,134,513	18%
Experience	2007	5,223,845	19,785,983	26%	2,691,952	20,443,071	13%	20,443,071	13%
	2008	5,935,391	21,943,336	27%	5,128,878	22,839,876	22%	22,839,876	22%
	2009	6,485,578	22,353,012	29%	6,770,512	23,661,335	29%	23,661,335	29%
	2010	7,109,993	22,493,869	32%	9,420,275	24,308,205	39%	24,308,205	39%
	2011	7,796,365	22,672,561	34%	6,981,761	24,953,275	28%	24,953,275	28%
	2012	8,563,343	23,074,476	37%	5,857,884	26,492,112	22%	27,774,106	21%
	2013	9,286,190	22,542,561	41%	7,539,079	26,448,191	29%	27,698,829	27%
	2014	10,110,168	22,468,465	45%	10,923,861	27,056,178	40%	28,284,570	39%
	2015	11,035,505	22,923,431	48%	12,875,033	28,200,539	46%	30,519,537	42%
	2016	11,812,450	21,680,735	54%	10,395,546	27,602,710	38%	29,859,942	35%
	2017	12,614,103	20,371,206	62%	11,619,132	26,905,225	43%	28,994,449	40%
Projected	2018	13,446,690	19,138,785	70%	13,012,593	26,210,290	50%	28,033,527	46%
Future	2019	14,287,180	17,954,654	80%	14,550,755	25,510,229	57%	27,283,815	53%
Experience	2020	15,120,322	16,808,883	90%	16,137,135	24,798,055	65%	26,522,137	60%
	2021	15,934,823	15,700,846	101%	17,711,748	24,069,233	74%	25,743,545	68%
	2022	16,763,460	14,631,066	115%	19,374,013	23,320,771	83%	24,944,745	77%
	2023	17,602,521	13,599,651	129%	21,186,091	22,550,279	94%	24,123,068	87%
	2024	18,392,537	12,607,286	146%	23,043,116	21,755,739	106%	23,276,295	98%
	2025	19,147,576	11,654,578	164%	24,891,883	20,935,024	119%	22,402,095	110%
	2026	19,863,204	10,741,716	185%	26,681,176	20,087,362	133%	21,499,556	123%
	2027	20,552,296	9,869,599	208%	28,463,740	19,213,398	148%	20,569,265	137%
	2028	21,201,926	9,039,181	235%	30,404,855	18,314,489	166%	19,612,587	154%
	2029	21,709,558	8,250,828	263%	32,305,702	17,392,660	186%	18,631,572	172%
	2030	22,120,109	7,504,655	295%	34,084,760	16,454,131	207%	17,632,721	192%
	2031	22,428,215	6,801,083	330%	35,752,678	15,504,553	231%	16,621,941	213%
	2032	22,641,427	6,140,524	369%	37,261,526	14,548,784	256%	15,604,289	237%
	2033	22,765,927	5,522,687	412%	38,365,462	13,591,825	282%	14,584,976	261%
	2034	22,713,072	4,947,039	459%	39,069,149	12,639,291	309%	13,569,883	286%
	2035	22,561,283	4,413,346	511%	39,727,671	11,696,804	340%	12,564,928	314%
	2036	22,263,230	3,920,744	568%	40,211,252	10,770,137	373%	11,576,185	344%
	2037	21,853,664	3,468,223	630%	40,377,915	9,865,794	409%	10,610,563	377%
	2038	21,356,830	3,054,533	699%	40,232,324	8,991,267	447%	9,676,089	412%
	2039	20,737,407	2,678,216	774%	39,946,601	8,151,524	490%	8,778,070	451%
	2040	20,061,899	2,338,072	858%	39,374,819	7,350,791	536%	7,921,059	493%
	2041	19,257,157	2,032,473	947%	38,357,538	6,593,097	582%	7,109,414	535%
	2042	18,358,828	1,758,836	1044%	37,065,769	5,882,084	630%	6,347,086	579%

Net Level Premium Reserves (based on original pricing assumptions and discount rates)	**163,772,628**
Future Loss Ratio adjusted for Net Level Premium Reserves	**63%**

Appendix A - Comparison to New Business Rates (GPB-COV-0002)

Rates are shown for a 90-day EP, 60% HHC benefit, and are per $5 (for a $200 monthly benefit)

Inflation Option: Future Purchase Option

New Business Rates adjusted for Benefit Differences* :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.80	0.92	1.00	1.12	1.18	1.96
30	0.84	0.97	1.06	1.17	1.24	1.96
31	0.90	1.03	1.06	1.17	1.24	1.96
32	0.90	1.03	1.10	1.23	1.30	2.01
33	0.90	1.03	1.10	1.23	1.30	2.01
34	0.90	1.03	1.16	1.29	1.37	2.14
35	0.90	1.03	1.16	1.29	1.37	2.15
36	0.90	1.03	1.16	1.29	1.37	2.17
37	0.90	1.03	1.23	1.36	1.44	2.17
38	0.90	1.04	1.23	1.37	1.45	2.33
39	0.90	1.04	1.23	1.39	1.47	2.38
40	0.90	1.04	1.24	1.40	1.48	2.42
41	0.93	1.11	1.27	1.44	1.53	2.51
42	0.93	1.12	1.38	1.58	1.67	2.61
43	1.00	1.22	1.41	1.62	1.72	2.71
44	1.11	1.24	1.54	1.68	1.78	2.83
45	1.21	1.35	1.58	1.83	1.94	2.96
46	1.22	1.38	1.65	1.91	2.02	3.11
47	1.35	1.52	1.71	2.00	2.11	3.27
48	1.48	1.57	1.88	2.20	2.32	3.46
49	1.50	1.71	1.96	2.30	2.43	3.52
50	1.65	1.77	2.04	2.42	2.55	3.74
51	1.71	1.85	2.19	2.59	2.74	3.91
52	1.88	2.05	2.32	2.78	2.94	4.23
53	1.96	2.16	2.59	3.10	3.28	4.46
54	2.17	2.41	2.76	3.32	3.51	4.69
55	2.25	2.53	2.95	3.57	3.77	4.95
56	2.38	2.76	3.14	3.79	4.01	5.36
57	2.54	2.87	3.34	4.02	4.25	5.66
58	2.72	3.12	3.55	4.18	4.42	6.02
59	2.77	3.29	3.82	4.48	4.74	6.41
60	2.99	3.48	4.12	4.71	4.98	6.88
61	3.20	3.82	4.43	5.12	5.42	7.47
62	3.44	4.06	4.80	5.62	5.94	8.19
63	3.63	4.50	5.23	6.17	6.52	8.86
64	3.96	4.85	5.72	6.83	7.22	9.67
65	4.22	5.28	6.16	7.42	7.84	10.57
66	4.65	5.75	6.73	7.93	8.38	11.45
67	5.03	6.22	7.29	8.41	8.90	12.34
68	5.51	6.64	7.97	9.04	9.56	13.42
69	6.06	7.31	8.68	9.57	10.12	14.43
70	6.62	7.84	9.40	10.25	10.83	15.65
71	7.34	8.66	10.43	11.14	11.78	17.54
72	8.12	9.51	11.57	12.15	12.84	19.63
73	8.98	10.48	12.77	13.28	14.04	21.96
74	10.02	11.55	14.25	14.49	15.32	24.62
75	11.04	12.77	15.75	15.85	16.75	27.56
76	12.27	14.41	17.93	17.97	19.00	31.10
77	13.72	16.33	20.26	20.39	21.55	35.33
78	15.31	18.36	23.03	23.15	24.47	39.88
79	17.11	20.77	26.08	26.22	27.72	45.19
80	28.37	23.41	29.61	29.79	31.50	51.06
81	30.63	25.72	32.58	32.81	34.68	56.13
82	32.72	27.80	35.21	35.49	37.52	60.71
83	35.54	31.06	39.36	39.63	41.90	67.85
84	38.15	33.98	43.17	43.45	45.94	74.33

GPB-COV-0002 Rates after Requested Rate Increases
excluding additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.32	0.38	0.44	0.46	0.48	0.56
30	0.32	0.38	0.44	0.46	0.48	0.56
31	0.32	0.38	0.44	0.46	0.48	0.56
32	0.32	0.38	0.44	0.46	0.48	0.56
33	0.33	0.40	0.46	0.49	0.50	0.59
34	0.35	0.41	0.48	0.51	0.53	0.62
35	0.36	0.43	0.51	0.53	0.55	0.65
36	0.38	0.45	0.53	0.56	0.58	0.68
37	0.40	0.47	0.56	0.58	0.60	0.71
38	0.41	0.50	0.58	0.61	0.63	0.75
39	0.43	0.52	0.61	0.64	0.66	0.78
40	0.45	0.54	0.64	0.67	0.70	0.82
41	0.48	0.58	0.69	0.72	0.75	0.88
42	0.52	0.62	0.74	0.77	0.80	0.94
43	0.55	0.67	0.79	0.83	0.86	1.01
44	0.59	0.72	0.85	0.89	0.92	1.09
45	0.64	0.77	0.91	0.95	0.99	1.16
46	0.68	0.83	0.97	1.02	1.06	1.25
47	0.73	0.89	1.05	1.10	1.14	1.34
48	0.78	0.95	1.12	1.18	1.22	1.44
49	0.84	1.02	1.20	1.26	1.31	1.54
50	0.90	1.09	1.29	1.36	1.40	1.65
51	0.96	1.17	1.39	1.46	1.51	1.77
52	1.03	1.26	1.49	1.56	1.62	1.90
53	1.10	1.35	1.59	1.68	1.73	2.04
54	1.18	1.45	1.71	1.80	1.86	2.19
55	1.27	1.55	1.84	1.93	2.00	2.34
56	1.36	1.66	1.97	2.07	2.14	2.51
57	1.46	1.79	2.11	2.22	2.30	2.70
58	1.64	2.01	2.38	2.50	2.58	3.03
59	1.84	2.26	2.67	2.81	2.90	3.40
60	2.07	2.54	3.01	3.16	3.26	3.82
61	2.33	2.86	3.38	3.55	3.66	4.29
62	2.62	3.22	3.80	3.99	4.12	4.82
63	2.95	3.62	4.28	4.48	4.63	5.41
64	3.32	4.07	4.81	5.04	5.20	6.04
65	3.73	4.58	5.41	5.67	5.84	6.57
66	4.20	5.15	6.08	6.37	6.57	7.17
67	4.72	5.80	6.84	7.16	7.38	7.81
68	5.17	6.35	7.49	7.84	8.09	8.52
69	5.65	6.95	8.20	8.59	8.86	9.30
70	6.18	7.61	8.99	9.41	9.70	10.18
71	6.76	8.33	9.84	10.31	10.62	11.37
72	7.39	9.12	10.78	11.29	11.64	12.77
73	8.13	10.04	11.87	12.43	12.81	14.34
74	8.93	11.05	13.08	13.69	14.10	16.10
75	9.82	12.16	14.40	15.07	15.52	18.06
76	10.79	13.39	15.85	16.59	17.09	19.87
77	11.86	14.74	17.46	18.27	18.81	21.87
78	11.86	14.74	17.46	18.27	18.81	21.67
79	11.86	14.74	17.46	18.27	18.81	20.69
80	11.86	14.74	17.46	18.27	18.81	19.70
81	11.86	14.74	17.46	18.27	18.81	19.70
82	11.86	14.74	17.46	18.27	18.81	19.70
83	11.86	14.74	17.46	18.27	18.81	19.70
84	11.86	14.74	17.46	18.27	18.81	19.70

GPB-COV-0002 Rates after Requested Rate Increases
including additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.32	0.38	0.44	0.46	0.48	0.56
30	0.32	0.38	0.44	0.46	0.48	0.56
31	0.32	0.38	0.44	0.46	0.48	0.56
32	0.32	0.38	0.44	0.46	0.48	0.56
33	0.33	0.40	0.46	0.49	0.50	0.59
34	0.35	0.41	0.48	0.51	0.53	0.62
35	0.36	0.43	0.51	0.53	0.55	0.65
36	0.38	0.45	0.53	0.56	0.58	0.68
37	0.40	0.47	0.56	0.58	0.60	0.71
38	0.41	0.50	0.58	0.61	0.63	0.75
39	0.43	0.52	0.61	0.64	0.66	0.78
40	0.45	0.54	0.64	0.67	0.70	0.82
41	0.48	0.58	0.69	0.72	0.75	0.88
42	0.52	0.62	0.74	0.77	0.80	0.94
43	0.55	0.67	0.79	0.83	0.86	1.01
44	0.59	0.72	0.85	0.89	0.92	1.09
45	0.64	0.77	0.91	0.95	0.99	1.16
46	0.68	0.83	0.97	1.02	1.06	1.25
47	0.73	0.89	1.05	1.10	1.14	1.34
48	0.78	0.95	1.12	1.18	1.22	1.44
49	0.84	1.02	1.20	1.26	1.31	1.54
50	0.90	1.09	1.29	1.36	1.40	1.65
51	0.96	1.17	1.39	1.46	1.51	1.77
52	1.03	1.26	1.49	1.56	1.62	1.90
53	1.10	1.35	1.59	1.68	1.73	2.04
54	1.18	1.45	1.71	1.80	1.86	2.19
55	1.27	1.55	1.84	1.93	2.00	2.34
56	1.36	1.66	1.97	2.07	2.14	2.51
57	1.46	1.79	2.11	2.22	2.30	2.70
58	1.64	2.01	2.38	2.50	2.58	3.03
59	1.84	2.26	2.67	2.81	2.90	3.40
60	2.07	2.54	3.01	3.16	3.26	3.82
61	2.33	2.86	3.38	3.55	3.66	4.29
62	2.62	3.22	3.80	3.99	4.12	4.82
63	2.95	3.62	4.28	4.48	4.63	5.41
64	3.32	4.07	4.81	5.04	5.20	6.04
65	3.73	4.58	5.41	5.67	5.84	6.57
66	4.20	5.15	6.08	6.37	6.57	7.17
67	4.72	5.80	6.84	7.16	7.38	7.81
68	5.17	6.35	7.49	7.84	8.09	8.52
69	5.65	6.95	8.20	8.59	8.86	9.30
70	6.18	7.61	8.99	9.41	9.70	10.18
71	6.76	8.33	9.84	10.31	10.62	11.37
72	7.39	9.12	10.78	11.29	11.64	12.77
73	8.13	10.04	11.87	12.43	12.81	14.34
74	8.93	11.05	13.08	13.69	14.10	16.10
75	9.82	12.16	14.40	15.07	15.52	18.06
76	10.79	13.39	15.85	16.59	17.09	19.87
77	11.86	14.74	17.46	18.27	18.81	21.87
78	11.86	14.74	17.46	18.27	18.81	21.67
79	11.86	14.74	17.46	18.27	18.81	20.69
80	11.86	14.74	17.46	18.27	18.81	19.70
81	11.86	14.74	17.46	18.27	18.81	19.70
82	11.86	14.74	17.46	18.27	18.81	19.70
83	11.86	14.74	17.46	18.27	18.81	19.70
84	11.86	14.74	17.46	18.27	18.81	19.70

GPB-COV-0002 2016 Rate Increases (%) :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	14%	14%	14%	14%	14%	14%
30	14%	14%	14%	14%	14%	14%
31	14%	14%	14%	14%	14%	14%
32	14%	14%	14%	14%	14%	14%
33	14%	14%	14%	14%	14%	14%
34	14%	14%	14%	14%	14%	14%
35	14%	14%	14%	14%	14%	14%
36	14%	14%	14%	14%	14%	14%
37	14%	14%	14%	14%	14%	14%
38	14%	14%	14%	14%	14%	14%
39	14%	14%	14%	14%	14%	14%
40	14%	14%	14%	14%	14%	14%
41	14%	14%	14%	14%	14%	14%
42	14%	14%	14%	14%	14%	14%
43	14%	14%	14%	14%	14%	14%
44	14%	14%	14%	14%	14%	14%
45	14%	14%	14%	14%	14%	14%
46	14%	14%	14%	14%	14%	14%
47	14%	14%	14%	14%	14%	14%
48	14%	14%	14%	14%	14%	14%
49	14%	14%	14%	14%	14%	14%
50	14%	14%	14%	14%	14%	14%
51	14%	14%	14%	14%	14%	14%
52	14%	14%	14%	14%	14%	14%
53	14%	14%	14%	14%	14%	14%
54	14%	14%	14%	14%	14%	14%
55	14%	14%	14%	14%	14%	14%
56	14%	14%	14%	14%	14%	14%
57	14%	14%	14%	14%	14%	14%
58	14%	14%	14%	14%	14%	14%
59	14%	14%	14%	14%	14%	14%
60	14%	14%	14%	14%	14%	14%
61	14%	14%	14%	14%	14%	14%
62	14%	14%	14%	14%	14%	14%
63	14%	14%	14%	14%	14%	14%
64	14%	14%	14%	14%	14%	14%
65	14%	14%	14%	14%	14%	14%
66	14%	14%	14%	14%	14%	14%
67	14%	14%	14%	14%	14%	14%
68	14%	14%	14%	14%	14%	14%
69	14%	14%	14%	14%	14%	14%
70	14%	14%	14%	14%	14%	14%
71	14%	14%	14%	14%	14%	14%
72	14%	14%	14%	14%	14%	14%
73	14%	14%	14%	14%	14%	14%
74	14%	14%	14%	14%	14%	14%
75	14%	14%	14%	14%	14%	14%
76	14%	14%	14%	14%	14%	14%
77	14%	14%	14%	14%	14%	14%
78	14%	14%	14%	14%	14%	14%
79	14%	14%	14%	14%	14%	14%
80	14%	14%	14%	14%	14%	14%
81	14%	14%	14%	14%	14%	14%
82	14%	14%	14%	14%	14%	14%
83	14%	14%	14%	14%	14%	14%
84	14%	14%	14%	14%	14%	14%

<u>* Benefit Differences between GPB-COV-0002 and P-FACE (2009):</u>

- Benefit differences that were adjusted for include: Homemaker benefit, Informal Care, ROB, and Stay-at-Home benefits
- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a comparable amount relative to Retail LTC products).
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifetime benefit period options).
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

GPB-COV-0002

Premiums to be used only with those
that have not previously elected an inflation decrease option

Monthly $40 Base Rates
50% Home Health Care Benefit

BP ► Age ▼	FPO Base					
	2 Years	3 Years	5 Years	6 Years	7 Years	10 Years
18-29	3.80	4.26	4.74	4.91	5.05	5.89
30	3.80	4.26	4.74	4.91	5.05	5.89
31	3.80	4.26	4.74	4.91	5.05	5.89
32	3.80	4.26	4.74	4.91	5.05	5.89
33	3.91	4.39	4.90	5.09	5.22	6.10
34	4.02	4.53	5.07	5.26	5.41	6.32
35	4.14	4.68	5.24	5.44	5.59	6.55
36	4.26	4.82	5.42	5.63	5.79	6.78
37	4.38	4.98	5.60	5.83	5.99	7.02
38	4.50	5.13	5.79	6.03	6.20	7.27
39	4.63	5.29	5.99	6.24	6.42	7.53
40	4.77	5.46	6.19	6.45	6.65	7.80
41	5.04	5.80	6.58	6.86	7.07	8.29
42	5.34	6.15	7.00	7.29	7.51	8.82
43	5.65	6.53	7.44	7.76	7.99	9.37
44	5.98	6.92	7.90	8.25	8.50	9.97
45	6.33	7.35	8.40	8.77	9.03	10.60
46	6.70	7.80	8.93	9.32	9.61	11.26
47	7.09	8.27	9.49	9.91	10.21	11.98
48	7.50	8.78	10.09	10.54	10.86	12.73
49	7.94	9.32	10.72	11.20	11.55	13.54
50	8.40	9.89	11.39	11.91	12.28	14.39
51	8.89	10.49	12.11	12.66	13.06	15.30
52	9.41	11.13	12.87	13.46	13.88	16.27
53	9.96	11.81	13.68	14.31	14.76	17.30
54	10.54	12.53	14.54	15.22	15.69	18.39
55	11.15	13.30	15.45	16.18	16.69	19.55
56	11.80	14.11	16.43	17.20	17.74	20.79
57	12.49	14.97	17.46	18.28	18.87	22.10
58	14.05	16.85	19.64	20.57	21.21	24.84
59	15.81	18.96	22.10	23.13	23.85	27.91
60	17.79	21.34	24.86	26.01	26.82	31.36
61	20.02	24.02	27.97	29.26	30.16	35.24
62	22.52	27.03	31.46	32.91	33.91	39.60
63	25.34	30.42	35.40	37.01	38.13	44.49
64	28.52	34.24	39.82	41.62	42.87	49.70
65	32.08	38.53	44.80	46.81	48.20	54.11
66	36.10	43.36	50.40	52.65	54.19	59.03
67	40.62	48.80	56.71	59.22	60.94	64.40
68	44.15	53.15	61.84	64.59	66.46	69.93
69	47.98	57.90	67.44	70.44	72.49	76.00
70	52.15	63.06	73.55	76.83	79.06	82.87
71	56.68	68.69	80.21	83.79	86.23	92.21
72	61.61	74.81	87.47	91.39	94.05	103.12
73	67.40	82.02	95.99	100.30	103.21	115.44
74	73.74	89.93	105.35	110.07	113.27	129.23
75	80.68	98.59	115.61	120.80	124.30	144.45
76	88.26	108.09	126.88	132.57	136.41	158.48
77	96.57	118.51	139.24	145.50	149.70	173.86
78	105.79	129.83	152.54	159.39	164.00	188.75
79	115.89	142.22	167.10	174.61	179.65	197.38
80	126.95	155.80	183.06	191.28	196.81	205.93
81	139.08	170.68	200.54	209.55	215.60	225.59
82	152.36	186.98	219.69	229.55	236.19	247.13
83	166.90	204.83	240.67	251.47	258.74	270.73
84	182.84	224.39	263.65	275.49	283.45	296.58
85	200.30	245.82	288.82	301.79	310.51	324.90

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

GPB-COV-0002

Premiums to be used only with those
that have not previously elected an inflation decrease option

Monthly Rates per $5 Increments
50% Home Health Care Benefit

BP ► Age ▼	FPO Base					
	2 Years	3 Years	5 Years	6 Years	7 Years	10 Years
18-29	0.25	0.25	0.36	0.38	0.40	0.47
30	0.25	0.25	0.36	0.38	0.40	0.47
31	0.25	0.25	0.36	0.38	0.40	0.47
32	0.25	0.25	0.36	0.38	0.40	0.47
33	0.26	0.26	0.38	0.40	0.42	0.49
34	0.28	0.28	0.40	0.42	0.44	0.52
35	0.29	0.29	0.42	0.45	0.46	0.55
36	0.31	0.31	0.45	0.47	0.49	0.58
37	0.32	0.32	0.47	0.49	0.51	0.61
38	0.34	0.34	0.49	0.52	0.54	0.64
39	0.36	0.36	0.52	0.55	0.57	0.67
40	0.37	0.37	0.55	0.58	0.60	0.71
41	0.40	0.40	0.59	0.62	0.64	0.76
42	0.43	0.43	0.63	0.67	0.69	0.82
43	0.47	0.47	0.68	0.72	0.75	0.88
44	0.50	0.50	0.74	0.78	0.80	0.95
45	0.54	0.54	0.79	0.83	0.86	1.02
46	0.58	0.58	0.85	0.90	0.93	1.10
47	0.63	0.63	0.92	0.97	1.00	1.18
48	0.67	0.67	0.99	1.04	1.08	1.27
49	0.73	0.73	1.06	1.12	1.16	1.37
50	0.78	0.78	1.15	1.21	1.25	1.47
51	0.84	0.84	1.23	1.30	1.34	1.58
52	0.91	0.91	1.33	1.40	1.45	1.70
53	0.98	0.98	1.43	1.51	1.56	1.83
54	1.05	1.05	1.54	1.62	1.68	1.97
55	1.13	1.13	1.66	1.74	1.80	2.12
56	1.22	1.22	1.78	1.88	1.94	2.28
57	1.31	1.31	1.92	2.02	2.09	2.46
58	1.48	1.48	2.16	2.27	2.35	2.76
59	1.66	1.66	2.43	2.56	2.64	3.10
60	1.87	1.87	2.74	2.88	2.97	3.48
61	2.10	2.10	3.08	3.24	3.34	3.92
62	2.37	2.37	3.47	3.64	3.76	4.40
63	2.66	2.66	3.90	4.09	4.23	4.94
64	3.00	3.00	4.39	4.60	4.75	5.52
65	3.37	3.37	4.94	5.18	5.35	6.01
66	3.80	3.80	5.56	5.83	6.01	6.56
67	4.27	4.27	6.25	6.55	6.76	7.16
68	4.68	4.68	6.86	7.19	7.41	7.82
69	5.14	5.14	7.53	7.89	8.13	8.54
70	5.63	5.63	8.26	8.66	8.92	9.37
71	6.17	6.17	9.06	9.50	9.79	10.49
72	6.77	6.77	9.95	10.42	10.74	11.79
73	7.45	7.45	10.97	11.49	11.84	13.26
74	8.20	8.20	12.09	12.66	13.05	14.90
75	9.03	9.03	13.33	13.96	14.38	16.73
76	9.94	9.94	14.69	15.38	15.85	18.43
77	10.95	10.95	16.20	16.96	17.47	20.30
78	12.02	12.02	17.78	18.62	19.18	22.09
79	13.20	13.20	19.52	20.44	21.06	23.15
80	14.49	14.49	21.44	22.45	23.12	24.21
81	15.91	15.91	23.54	24.64	25.38	26.58
82	17.47	17.47	25.85	27.06	27.87	29.19
83	19.18	19.18	28.38	29.71	30.60	32.05
84	21.06	21.06	31.16	32.62	33.60	35.19
85	23.12	23.12	34.21	35.82	36.89	38.64

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Care Choice Policy Series
Policies issued prior to Oct 1st 2003
May 20, 2019

Product Name	Form Number	Issue Date Range
Care Choice	P-FACE(2002-2) VA	July 2003 - September 2003

These policy form rates were originally priced with a margin for moderately adverse experience in accordance with the NAIC model rate stability regulations which were being implemented on a State by State basis during the time of our initial rate filing.

1. Scope & Purpose

This memorandum consists of materials which support the development of new premium rates for the above captioned Policy series forms. The purpose of this memorandum is to demonstrate that the requirements of this State in regards to an in force rate increase request have been met. This rate filing is not intended to be used for any other purpose.

2. Benefit Description

A brief policy description for the certificate form:

P-FACE(2002-2) VA
This is a Group Long-Term Care plan that pays benefits to the certificate holder insured for the following covered care or services provided to the insured:

- Confinement in a Nursing Home or Alternate Care Facility for room, board and care services;
- Home Health Care; Hospice Care, Respite Care; or
- Attendance at an Adult Day Care Center providing Adult Day Care.

It is intended to be a Qualified Long-Term Care Insurance contract under the Federal Internal Revenue Code.

The benefit trigger is determined based on the insured's cognitive impairment or his requiring substantial assistance to perform two out of six activities of daily living (ADLs) of bathing, dressing, eating, toileting, transferring and maintaining continence. The insured must be certified to be chronically ill by a licensed health care practitioner.

Long-Term Care Benefits are paid at 100% of the actual charges for each day of care after the qualification period up to:

Nursing Home (NH):

(a) the Nursing Home Daily Maximum Benefit (NH DMB) elected for care received in a NH, or

Community Based Professional Care (CBPC):

(b) the CBPC DMB elected for covered services received in a community setting (including home health care, adult day care and hospice care provided outside a NH, hospice facility or alternate care facility) or

Alternate Care Facility (ACF):

(c) the ACF DMB elected for covered services received in an ACF, or

Informal Care:

(d) the Informal Care DMB elected up to the number of days per calendar year elected for covered Informal Care services (custodial or homemaker services provided by a person without professional skills).

Benefits are payable until the Lifetime Maximum Benefit (LMB) is reached. Benefits are coordinated with Medicare as well as with any other Group certificate coverages.

3. Renewability

Certificates under this policy form have a guaranteed renewable clause.

4. Applicability

This filing is applicable to inforce policies and to new certificates enrolling in this policy series. The premium changes will apply to the base forms as well as all applicable optional benefits upon the expiration of any applicable group policy rate guarantees.

5. Actuarial Assumptions

Morbidity

The morbidity assumptions are derived from our own experience, following a comprehensive claim study recently completed. The study has been peer reviewed both internally as well as by an Independent third party.

Our claims projections include 12 years of future morbidity improvements at 1.1% per year, as well as a 5.0% margin for moderately adverse experience, consistent with the margin originally anticipated in our original pricing loss ratio.

Below are currently expected sample annual claim costs for a P-FACE(2002-2) VA policy, $10 daily benefit, and 5yr LMB which include a 5.0% margin for moderately adverse experience:

Issue Age 45		
Age	FPO	ABI
45	4.80	6.91
50	4.84	8.64
55	6.66	14.54
60	7.44	17.88
65	12.79	38.11
70	23.74	86.37
75	64.47	296.44
80	161.02	934.19
85	343.64	2,465.49

Issue Age 50		
Age	FPO	ABI
50	5.98	8.53
55	7.54	13.27
60	8.92	17.54
65	17.17	41.58
70	36.57	107.76
75	98.24	364.56
80	235.22	1,099.07
85	431.34	2,493.52

Issue Age 60		
Age	FPO	ABI
60	8.19	10.63
65	16.48	26.36
70	39.07	74.56
75	108.64	256.23
80	266.18	782.32
85	485.14	1,751.73

Voluntary Lapses

The voluntary lapse rates are also based on our own experience:

In addition to the lapse rates shown below, we assume an additional 3.3% lapse rate due to the rate increase.

Guaranteed Issue:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	18.7%	10.8%	8.8%	7.4%	6.8%	7.0%	7.0%	7.0%	7.0%
2	16.0%	9.4%	7.4%	5.9%	5.4%	5.4%	5.4%	5.4%	5.4%
3	12.4%	7.0%	6.5%	4.9%	4.0%	3.8%	3.8%	3.8%	3.8%
4	10.5%	6.3%	5.7%	4.3%	3.4%	3.0%	3.0%	3.0%	3.0%
5	8.9%	5.6%	5.0%	3.8%	3.0%	2.4%	2.4%	2.4%	2.4%
6	7.5%	5.0%	4.4%	3.3%	2.6%	1.9%	1.9%	1.9%	1.9%
7	6.3%	4.4%	3.8%	2.9%	2.2%	1.5%	1.5%	1.5%	1.5%
8	5.3%	3.9%	3.3%	2.5%	1.9%	1.2%	1.2%	1.2%	1.2%
9	4.8%	3.6%	3.0%	2.3%	1.7%	1.0%	1.0%	1.0%	1.0%
10	4.7%	3.3%	2.7%	2.1%	1.5%	0.8%	0.8%	0.8%	0.8%
11	4.3%	3.0%	2.4%	1.9%	1.4%	0.6%	0.6%	0.6%	0.6%
12	3.7%	2.7%	2.1%	1.6%	1.2%	0.5%	0.5%	0.5%	0.5%
13	3.3%	2.4%	1.8%	1.4%	1.0%	0.5%	0.5%	0.5%	0.5%
14	3.0%	2.2%	1.6%	1.3%	0.9%	0.5%	0.5%	0.5%	0.5%
15	2.7%	1.9%	1.4%	1.1%	0.8%	0.5%	0.5%	0.5%	0.5%
16	2.4%	1.7%	1.2%	1.0%	0.7%	0.5%	0.5%	0.5%	0.5%
17	2.2%	1.5%	1.1%	0.9%	0.6%	0.5%	0.5%	0.5%	0.5%
18	2.0%	1.4%	0.9%	0.8%	0.5%	0.5%	0.5%	0.5%	0.5%
19	1.8%	1.2%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
20	1.6%	1.1%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
21	1.4%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
22	1.3%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
23	1.2%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
24	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
25+	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Care Choice Policy Series
Policies issued prior to Oct 1st 2003
May 20, 2019

Fully Underwritten:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	10.3%	5.8%	4.7%	3.4%	2.9%	3.0%	3.7%	3.0%	3.0%
2	8.4%	4.8%	4.0%	2.9%	2.4%	2.1%	2.4%	1.8%	1.8%
3	7.2%	4.6%	3.4%	2.8%	2.0%	1.7%	1.4%	1.4%	1.4%
4	6.2%	4.0%	2.9%	2.3%	1.7%	1.3%	1.1%	1.1%	1.1%
5	5.4%	3.5%	2.5%	2.0%	1.4%	1.1%	0.9%	1.0%	1.0%
6	4.6%	3.0%	2.2%	1.7%	1.2%	0.8%	0.7%	0.8%	0.8%
7	4.0%	2.6%	1.9%	1.4%	1.0%	0.7%	0.4%	0.7%	0.7%
8	3.4%	2.3%	1.6%	1.2%	0.9%	0.5%	0.4%	0.5%	0.5%
9	2.9%	2.0%	1.4%	1.0%	0.7%	0.4%	0.4%	0.5%	0.5%
10	2.7%	1.7%	1.3%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
11	2.4%	1.5%	1.1%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
12	2.3%	1.3%	0.8%	0.6%	0.5%	0.4%	0.4%	0.5%	0.5%
13	2.1%	1.2%	0.7%	0.6%	0.4%	0.4%	0.4%	0.5%	0.5%
14	2.0%	1.0%	0.6%	0.5%	0.4%	0.4%	0.4%	0.5%	0.5%
15	1.8%	0.9%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
16	1.7%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
17	1.6%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
18	1.4%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
19	1.3%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
20	1.2%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
21	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
22	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
23	1.0%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
24	0.9%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
25+	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%

Mortality

The mortality rates have also been derived based on our own experience within our retail and group long-term care block of business.

The base mortality table is the unloaded 1994 Group Annuity Mortality Table, sex-distinct, with 19 years of historical improvements based on scale AA. We then apply the following series of adjustment factors which vary by underwriting class and gender:

Fully Underwritten:

Policy Duration	Issue Age			
	< = 55	65	75	> = 82
1	33.3%	19.0%	19.0%	28.5%
2	36.1%	21.9%	25.7%	33.3%
3	39.0%	24.7%	32.3%	38.0%
4	40.9%	27.6%	39.0%	42.8%
5	42.8%	31.4%	45.6%	47.5%
6	44.7%	36.1%	52.3%	52.3%
7	46.6%	41.8%	55.1%	57.0%
8	48.5%	48.5%	58.0%	61.8%
9	50.4%	55.1%	60.8%	66.5%
10	51.3%	61.8%	63.7%	71.3%
11	52.3%	64.6%	69.4%	76.0%
12	53.6%	66.5%	75.1%	80.8%
13	54.9%	67.5%	77.9%	85.5%
14	56.2%	68.5%	80.8%	90.3%
15	57.4%	69.7%	83.6%	95.0%
16	58.7%	71.1%	85.5%	95.0%
17	60.0%	72.5%	86.9%	95.0%
18	61.3%	74.0%	88.5%	95.0%
19	62.6%	75.4%	90.1%	95.0%
20	63.9%	76.9%	92.2%	95.0%
21	65.6%	78.4%	95.0%	95.0%
22	67.5%	80.1%	95.0%	95.0%
23	69.4%	81.7%	95.0%	95.0%
24	72.2%	83.4%	95.0%	95.0%
25	76.0%	85.1%	95.0%	95.0%
26	79.8%	86.7%	95.0%	95.0%
27	83.6%	88.4%	95.0%	95.0%
28	87.4%	90.0%	95.0%	95.0%
29	91.2%	91.7%	95.0%	95.0%
30+	95.0%	95.0%	95.0%	95.0%

Guaranteed Issue Male:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	133.0%	76.0%	52.3%	65.6%	95.0%
2	129.2%	75.1%	53.2%	67.5%	95.0%
3	125.4%	74.1%	54.2%	70.3%	95.0%
4	121.6%	73.2%	55.1%	73.2%	95.0%
5	117.8%	72.2%	57.0%	76.0%	95.0%
6	115.0%	70.3%	58.9%	79.8%	95.0%
7	112.1%	68.4%	60.8%	83.6%	95.0%
8	109.3%	64.6%	61.8%	87.4%	95.0%
9	106.4%	60.8%	62.7%	91.2%	95.0%
10	103.6%	57.0%	63.7%	95.0%	95.0%
11	100.7%	53.2%	65.6%	95.0%	95.0%
12	98.8%	54.2%	67.5%	95.0%	95.0%
13	96.9%	55.1%	70.3%	95.0%	95.0%
14	95.0%	57.0%	73.2%	95.0%	95.0%
15	91.2%	58.0%	76.0%	95.0%	95.0%
16	88.8%	59.5%	80.6%	96.0%	96.0%
17	86.8%	62.1%	85.4%	97.0%	97.0%
18	85.2%	63.7%	90.2%	98.0%	98.0%
19	83.9%	65.3%	95.0%	99.0%	99.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Guaranteed Issue Female:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	154.0%	88.0%	60.5%	75.9%	110.0%
2	149.6%	86.9%	61.6%	78.1%	110.0%
3	145.2%	85.8%	62.7%	81.4%	110.0%
4	140.8%	84.7%	63.8%	84.7%	110.0%
5	136.4%	83.6%	66.0%	88.0%	110.0%
6	133.1%	81.4%	68.2%	92.4%	110.0%
7	129.8%	79.2%	70.4%	96.8%	110.0%
8	126.5%	74.8%	71.5%	101.2%	110.0%
9	123.2%	70.4%	72.6%	105.6%	110.0%
10	119.9%	66.0%	73.7%	110.0%	110.0%
11	116.6%	61.6%	75.9%	110.0%	110.0%
12	114.4%	62.7%	78.1%	110.0%	110.0%
13	112.2%	63.8%	81.4%	110.0%	110.0%
14	110.0%	66.0%	84.7%	110.0%	110.0%
15	105.6%	67.1%	88.0%	110.0%	110.0%
16	99.9%	67.0%	90.7%	108.0%	108.0%
17	94.8%	67.8%	93.3%	106.0%	106.0%
18	90.4%	67.6%	95.7%	104.0%	104.0%
19	86.4%	67.3%	97.9%	102.0%	102.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Factors for ages not listed above are interpolated.

We are also projecting 12 years of future mortality improvement based on scale AA, consistent with the 12 years of future morbidity improvement in our future claim projections.

Expenses

Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

6. Trend Assumptions

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

7. Marketing Method

The employees and other eligibles were marketed through the Employer, Union or Association as part of their corporate sponsored employee benefits package with the support of John Hancock representatives and direct mail.

8. Underwriting

Actively at Work employees were generally offered coverage on a Guaranteed Acceptance basis during limited enrollment periods. Other eligibles were underwritten using either simplified (short form) or full underwriting.

9. Premium Classes

The base policy premium rates vary by Issue age, LMB, and Inflation Option, as in the initial rate filing.

All premium factors related to the insured elected benefit design options, case size, commissions, or underwriting risk class remain unchanged from the initial rate filing, with the following exception: There was a 20% load on post-issue date optional coverage increases to the insured's DMB. Our current new business rates do not include this load on post-issue date option coverage. To maintain consistency with our current new business pricing, both the past and future optional coverage increases will no longer be loaded by 20%.

10. Premium Modalization Rules

Premiums are payable through payroll deduction, direct bill or automatic bank withdrawal.

The following factors are applied to the monthly premium for different billing frequencies.

Frequency	Multiple of Monthly Premium
Every 4 weeks	12 / 13
Semi-Monthly	12 / 24
Bi-weekly	12 / 26
First 4 weeks of month	12 / 48
Weekly	12 / 52

11. Issue Age Range

The issue age range is 18+ for all policy forms.

12. Area Factors

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

13. Average Annual Premium

The table below summarizes the average annual premium per certificate before and after the requested increase.

	Nationwide	Virginia	
Form	before the rate increase	before the rate increase	after the rate increase
P-FACE(2002-2) VA	1,230	950	1,113

14. Number of Certificate Holders

The table below summarizes, as of 12/31/2015, the number of certificates inforce and their 2015 annualized premium that will be affected by this rate increase in your state.

Form	Number of Certificates	2015 Annualized Premium
P-FACE(2002-2) VA	2,163	2,051,159

15. Reserves

Active Life Reserves have not been used in this rate increase demonstration. Minimum Statutory Claim reserves as of 12/31/2015 have been discounted to the date of incurral of each respective claim and included in the historical incurred claims. Incurred But Not Reported claim reserves as of 12/31/2015 have also been allocated to the calendar year of incurral and included in historic incurred claims.

16. Requested Rate Increase

The Company is requesting an average rate increase of 17.1%, which varies by issue age, benefit period, and inflation option, and ranges from 15.8% to 18.8%. Rate increases were derived following post rate stability provision and are detailed in our Post-RS actuarial memorandum section 16. The methodology is also provided below:

1. The Company first determined the projected lifetime loss ratio for this form based on nationwide actual experience and projected future experience assuming all prior rate increase requests were approved in full and within three months of the original filing date. We then determined the amount of rate increase (15.8%) that would be needed in order to revert to the lifetime loss ratio certified to in our 2010 inforce rate increase filing for this form.
2. We are no longer selling new business under this policy form, but we ensured that the proposed rate increases did not result in premium rates that exceed what could be reasonably estimated as new business rates for our Group forms. We determined such rates by applying a series of factors to the P-FACE(2009) policy form premium rates (which were the last set of Group LTC premium rates that were sold). One factor applied to P-FACE(2009) premium rates was a ratio of the most recent Traditional Retail premium rates filed in the Interstate Compact prior to Performance LTC (ICC12-LTC-12, filed in 2014) relative to the Retail LTC rates filed in 2010 (LTC-03). This was done because we believe that if new business for Group Long-Term Care was still being sold, premium rates would have increased by a comparable amount to our Retail business since 2010. Rates were increased by an additional 9.5% across the board, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016 since a 2016 experience study showed a need to raise rates by 9.5%. These rates were then further adjusted for benefit differences and changes in underwriting guidelines and risk classification (this is demonstrated in **Appendix A**). There is no impact to our proposed rate increase since our proposed

premium rates fall below our assumed new business rates. Therefore, after the application of this restriction the average rate increase for the forms listed in this memo remains at 15.8%.

3. Rate increases were adjusted to account for the timing of approvals on prior filings in your State. Adjustments are proportional to the amounts requested in prior filings and were determined such that achieved lifetime loss ratios match those targeted in Step #1 above. After the application of this adjustment, the average rate increase for the forms listed in this memo is 17.1%, ranging from 15.8% to 18.8%.
4. We ensured that the resulting overall increase in rates satisfied the rate stability rule ensuring no less than an 85% loss ratio on the rate increase portion, while applying the original loss ratio on the original rate schedule (as the original loss ratio was higher than 58%). This is demonstrated at the bottom of **Exhibit 1** where it can be seen that the sum of past and future projected incurred claims is not less than the sum of the original premium times the original loss ratio and the rate increase premium times the 85% loss ratio requirement.

Note that as shown at the bottom of Exhibit 1b, by requesting the current rate increase, we are complying with Virginia state regulation where the post rate increase future loss ratio (adjusted for Net Level Premium Reserves) is no less than 60% under the original pricing interest rate assumption.

In **Appendix A** we reflect the proposed premium rates both with and without any additional cost as we believe any cost due to delayed implementation should not be subject to the new business rate restrictions.

Appendix B1 contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did not* elect an inflation reduction option as part of the 2010 rate increase filings. **Appendix B2** contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did* elect an inflation reduction option as part of the 2010 rate increase filings. Please note that the actual rates implemented may vary slightly from those in Appendices B1 and B2 due to implementation rounding algorithms.

Some of our older group clients have certificates inforce under different policy forms, having opted for upgrading their pre-existing employee benefit plan to a new plan covered under a newer policy form. In those situations, we have offered internal replacement (plan upgrade) opportunities to existing certificate holders, whereby a certificate holder may have elected to lapse their original coverage and purchase the new plan coverage as a replacement. In those situations, the insured would be subject to the attained age (at the time of the replacement) premium rates for their new coverage but in some situations we would provide a premium credit to recognize the premium they had paid since their issue age for their original coverage under the prior plan. For these insureds, we will determine their new premium rate based on their historical original issue ages respectively for each layer of coverage. In a situation where the resulting rate increases are greater than those listed in Appendix A for their coverage, we will continue to offer them a premium credit in order to limit their respective rate increases to the amounts listed in Appendix A.

For those group clients that transferred to us from an external carrier, we will continue to recognize any assets transferred from the prior carrier. We will continue to provide these credits to the insureds within those groups and the rate increase will be calculated based on the insureds' net premium rate.

17. Analysis Performed

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

The original pricing assumptions for morbidity, voluntary termination rates, and mortality were as follows:

Morbidity

Claim assumptions were derived using data published by the National Center for Health Statistics National Nursing Home Survey (1985 and 1995), the National Health Interview Survey (1984), the National Long-Term Care Survey (1982, 1984, 1989, 1994, and 1999), Medicare data, and other experience furnished to us by consultants, with adjustments due to the impact of underwriting, inflation options, elected options, anti-selection considerations, and the savings incurred because the maximum daily benefit will not always be paid.

Below are the original sample annual claim costs for a P-FACE(2002-2) policy, $10 daily benefit, and 5yr LMB which include a 5.0% margin for moderately adverse experience:

Issue Age 45		
Age	**FPO**	**ABI**
45	3.21	3.43
50	4.26	5.15
55	7.09	10.29
60	10.37	18.87
65	18.36	42.64
70	33.85	101.49
75	65.14	252.15
80	129.08	645.33
85	223.42	1,440.03
90	318.61	2,641.72

Issue Age 50		
Age	FPO	ABI
50	3.97	4.23
55	5.96	7.22
60	10.61	15.54
65	19.02	34.96
70	35.25	82.99
75	64.96	196.70
80	128.74	502.61
85	222.56	1,119.37
90	316.36	2,046.26

Issue Age 60		
Age	FPO	ABI
60	5.46	5.83
65	16.07	19.69
70	37.49	55.98
75	70.24	131.87
80	134.18	321.43
85	223.01	684.88
90	319.28	1,258.20

Voluntary Terminations

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

Duration	30	40	45	50	55	60	65	70
1	10.00%	10.00%	7.00%	7.00%	6.50%	6.50%	6.00%	6.00%
2	9.00%	9.00%	6.00%	5.50%	5.50%	5.00%	5.00%	5.00%
3	8.50%	8.50%	5.00%	5.00%	4.00%	4.00%	4.00%	4.00%
4	7.50%	7.50%	4.50%	4.50%	3.50%	3.50%	3.50%	4.00%
5	4.50%	4.00%	3.00%	2.75%	2.75%	2.75%	2.75%	2.75%
6	4.50%	4.00%	3.00%	2.75%	2.75%	2.75%	2.75%	2.75%
7	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
8	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
9	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
10	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%

Mortality

The 1994 Group Annuity Mortality Table was used, weighted 40% males and 60% females, with the following selection factors applied:

Duration	Selection Factor
1	20.0%
2	30.0%
3	40.0%
4	50.0%
5	60.0%
6	70.0%
7	80.0%
8	85.0%
9	90.0%
10	95.0%
11+	100.0%

In addition, future improvements of 1% per year were reflected.

The following tables show in aggregate how our new assumptions (excluding the moderately adverse margin) compare to actual experience:

Morbidity

Experience period: Inception through 9/30/2012 for incidence, inception through 9/30/2011 for claim terminations and salvage

The following charts show key experience compared to revised assumptions.

Incidence

Duration	A/E
1-3	114%
4-6	106%
7-9	99%
10+	100%
Total	**102%**

Claim Terminations

Continuance	A/E
Total	**99%**

Salvage

Amount Paid	A/E
Total	**103%**

While we usually complete triennial studies, we found that our quarterly morbidity A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

Voluntary Lapses

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1	73%	100%
2	72%	101%

3-5	84%	97%
6-10	93%	103%
11+	100%	100%
Total	**85%**	**100%**

We increased ultimate lapse rates slightly (in the range of 0.1% to 0.2%), consistent with experience, which slightly lowered the loss ratio.
Note that we are no longer selling Group business. Early durations are no longer applicable.

Mortality

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1-5	118%	105%
6-10	105%	104%
11-15	92%	101%
16+	98%	94%
Total	**100%**	**101%**

While we usually complete triennial studies, we found that our quarterly termination A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 99%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

18. Experience – Past & Future

Exhibit 1 contains nationwide past premium and claims experience and future premium and claim projections and illustrates that the anticipated lifetime loss ratio with the requested rate increase is 93.1%, well in excess of the minimum loss ratio of 60% as well as greater than the original pricing loss ratio of 84.0%. The lifetime loss ratio as of 12/31/2015 is calculated as the sum of accumulated past and discounted future claims divided by the sum of accumulated past and discounted future earned premium where accumulation and discounting occur at the maximum statutory valuation discount rate. In Exhibit 1, the proposed rate increase is applied historically (starting in calendar year 2012). Please refer to the cover letter for background on this modeling assumption.

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

Furthermore, **Exhibit 1** demonstrates that that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

1. Accumulated value of the initial earned premium times the original assumed lifetime loss ratio (which was higher than 58%),
2. 85% of the accumulated value of prior premium rate schedule increases,
3. Present value of future projected initial earned premium times the original assumed lifetime loss ratio, and

4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

Note that rate increases will only apply once the applicable group policy rate guarantee has expired.

19. New inflation options that will allow certificate holders to avoid the rate increase

Although this is a closed block of business, we are filing new future inflation options that will allow certificate holders that have a fixed Compound Inflation (Automatic Benefit Increase or ABI) coverage the option to completely offset6 the rate increase.

Under these new options, the certificate holders get to keep their current accumulated Daily benefit and their current remaining Lifetime Maximum Benefit, but the future indexation rate will be reduced as follows:

- For certificate holders that are currently receiving a 5% inflation benefit, the annual inflation rate will be reduced from 5% to a future annual rate of 4.4%
- For certificate holders that have previously reduced their inflation rate in order to avoid a rate increase and are currently receiving inflation benefits of 3.3% for benefit periods less than 10 years and 2.3% for benefit periods 10 years or greater, the future annual inflation rate will be reduced to 2.5% for benefit periods less than 10 years and 1.5% for benefit periods 10 years or greater.

The indexation rates of 4.4%, 2.5% and 1.5% were determined to be actuarially equivalent to the requested rate increases in aggregate and therefore these options are only available if the full rate increase requested is accepted.

The premium rate schedules for these options are included in this filing as **Appendices C1** and **C2.**

20. New Shared Cost option that will allow the policyholder to offset the rate increase

We are filing a new Shared Cost option that will allow all policyholders the option to offset the rate increase. The Shared Cost option would:

- Reduce the policyholder's current policy benefit amounts by their Shared Cost percentage. The daily/monthly benefit and the policy limit will be reduced by the Shared Cost percentage
- Apply a percentage factor to any future claim payments equal to the Shared Cost percentage. John Hancock will pay our portion (1 minus the Shared Cost percent) of any covered services, up to the new benefit amount and the policyholder will be responsible for the remainder.

The Shared Cost Percentages are calculated using seriatim, nationwide data for each benefit period, inflation type and issue age combination. For policyholder Shared Cost percentages and for details on premium calculations for policyholders who elected the Shared Cost option, please see **Appendix D**. The Shared Cost percentages in Appendix D will apply to all policyholders who have not bought additional attained age coverage. For those who have, the Shared Cost percentage will be the lesser of those shown in Appendix D and 80% of the policyholder's currently available benefit reduction that would offset their rate increase.

All Shared Cost percentages were determined to be actuarially equivalent to the requested rate increases by combination of issue age, benefit period and inflation type, and therefore these options are only available if the full rate increase requested is accepted.

The premium rate schedules for these options are included in this filing as **Appendices C1 to C2.**

21. History of Previous Rate Revisions

A 41.7% rate increase on these policy forms was accepted by your state on February 03, 2012.

22. Ensuring No Cross-Subsidization Between States

We have ensured no state's rate increase approvals will subsidize other states' experience. Rate increases will vary by state, but only to reflect the timing and amount of prior rate increases approved by that state. This is accomplished by first backing-out all prior approved rate increases from our nationwide premium data. We then re-introduce prior rate increases with the amount and timing based on your state's prior approvals (as detailed in Section 20). The current proposed rate increases are then determined based on the amounts needed in order to achieve our target loss ratios where our targets reflect the lifetime loss ratios certified to in our prior filing.

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

23. Past Losses Testing

Preventing companies from recouping past losses was the subject of a recent discussion by the NAIC in late 2013. The accepted methodology, which was incorporated into the 2014 LTC Model Regulation, defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

> Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.

We apply this methodology in **Exhibit 1A**. The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing loss ratio to the actual earned premium in a given calendar year. Later, in years in which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed at that time.

24. Proposed Effective Date

These rates will not be effective until after we have satisfied the required 90 days advance notice to the policyholder and to the insureds.

25. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for rendering this opinion and am familiar with the requirements for filing long-term care insurance premiums and filing for increases in long-term care insurance premiums. This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

The preceding Actuarial Memorandum contains:

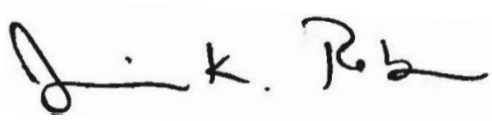
a) the assumptions on which this certification is based;
b) the adjustments to prior assumptions with an explanation of the reasons previous assumptions were not realized;
c) a lifetime projection of the prior premium rate schedules and incurred claims plus future expected premiums and claims which demonstrates that the revised premium rate schedule meets the loss ratios standards and necessary details of this state; and
d) disclosure of the manner, if any, in which reserves have been recognized.

If the requested premium rate schedule increase is implemented and the underlying assumptions which reflect moderately adverse conditions are realized, no further premium rate schedule increases are anticipated.

I have reviewed and taken into consideration the policy design and coverage provided, and our current underwriting and claims adjudication processes.

In forming my opinion, I have used actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary. Based on these assumptions or statutory requirements where necessary, the premium rate filing is in compliance with the loss ratio standards of this state.

The basis for contract reserves has been previously filed and there is no anticipation of any changes.



Julie K. Robinson, FSA, MAAA, CFP®
Associate Actuary
John Hancock Life Insurance Company (U.S.A.)

Exhibit 1: Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	13,818	0%	-	13,818	0%
	1989	-	-	-	-	21,913	0%	-	21,913	0%
	1990	-	-	-	-	208,922	0%	-	208,922	0%
	1991	-	-	-	-	642,881	0%	-	642,881	0%
	1992	-	-	-	-	833,221	0%	-	833,221	0%
	1993	-	-	-	134	991,912	0%	134	991,912	0%
	1994	-	-	-	-	1,864,540	0%	-	1,864,540	0%
	1995	-	-	-	-	2,925,155	0%	-	2,925,155	0%
	1996	-	-	-	12,665	3,371,808	0%	12,665	3,371,808	0%
	1997	-	-	-	-	3,861,964	0%	-	3,861,964	0%
	1998	-	-	-	-	4,095,544	0%	-	4,095,544	0%
	1999	-	-	-	-	5,000,072	0%	-	5,000,072	0%
	2000	-	-	-	-	6,333,535	0%	-	6,333,535	0%
	2001	-	-	-	-	6,960,988	0%	-	6,960,988	0%
	2002	-	-	-	-	7,911,777	0%	-	7,911,777	0%
	2003	509,636	4,845,050	11%	6,454	13,750,467	0%	6,454	13,750,467	0%
	2004	1,673,263	17,363,179	10%	1,783,644	37,936,848	5%	1,783,644	37,936,848	5%
	2005	3,204,184	32,286,572	10%	5,763,357	40,683,914	14%	5,763,357	40,683,914	14%
Historical	2006	5,252,667	49,737,743	11%	6,646,734	60,257,833	11%	6,646,734	60,257,833	11%
Experience	2007	7,698,354	71,433,138	11%	7,713,359	90,416,518	9%	7,713,359	90,416,518	9%
	2008	11,310,542	100,728,070	11%	13,925,013	129,455,072	11%	13,925,013	129,455,072	11%
	2009	16,001,529	132,047,975	12%	17,080,052	128,101,000	13%	17,080,052	128,101,000	13%
	2010	21,770,846	161,765,338	13%	18,237,144	155,130,177	12%	18,237,144	155,130,177	12%
	2011	26,501,041	170,064,912	16%	24,516,433	155,960,810	16%	24,516,433	155,960,810	16%
	2012	30,899,526	170,405,024	18%	31,155,792	162,381,317	19%	31,155,792	169,503,029	18%
	2013	34,836,482	167,680,808	21%	31,468,380	188,756,163	16%	31,468,380	199,499,855	16%
	2014	39,106,732	163,539,147	24%	35,292,728	189,328,204	18%	35,292,728	202,592,592	17%
	2015	44,228,702	161,758,945	27%	46,562,193	190,966,910	24%	46,562,193	221,562,503	21%
	2016	49,397,673	157,106,737	31%	48,957,649	189,328,627	25%	48,997,886	220,738,237	22%
	2017	54,401,435	151,404,073	36%	54,871,632	186,176,317	29%	54,426,802	215,670,999	25%
Projected	2018	59,347,573	145,882,536	41%	61,526,638	181,819,933	33%	59,765,663	206,005,250	29%
Future	2019	64,375,235	140,452,085	46%	69,076,897	177,620,137	38%	67,157,159	201,250,911	33%
Experience	2020	69,750,293	135,101,163	52%	77,444,265	173,525,822	44%	75,331,595	196,617,123	38%
	2021	75,579,486	129,779,641	58%	86,783,003	169,498,371	50%	84,438,792	192,060,005	44%
	2022	81,733,464	124,496,299	66%	97,313,027	165,491,781	58%	94,693,791	187,527,302	50%
	2023	88,295,204	119,242,055	74%	109,209,148	161,458,762	66%	106,267,887	182,965,319	58%
	2024	95,269,409	114,014,082	84%	122,312,666	157,363,262	76%	119,009,511	178,333,082	67%
	2025	102,593,448	108,820,337	94%	136,582,022	153,170,176	87%	132,878,846	173,590,686	77%
	2026	110,198,331	103,660,401	106%	152,121,320	148,849,155	100%	147,976,586	168,703,611	88%
	2027	118,041,368	98,537,013	120%	168,975,079	144,372,929	114%	164,346,175	163,640,825	100%
	2028	126,018,477	93,454,094	135%	187,968,475	139,714,975	132%	182,786,695	158,372,139	115%
	2029	134,060,723	88,417,685	152%	208,870,364	134,842,664	151%	203,076,127	152,860,462	133%
	2030	142,088,692	83,433,868	170%	230,569,234	129,740,117	174%	224,138,024	147,087,682	152%
	2031	150,018,756	78,509,185	191%	252,886,942	124,404,599	199%	245,798,103	141,050,568	174%
	2032	157,786,811	73,651,121	214%	275,284,878	118,840,048	226%	267,533,510	134,753,437	199%
	2033	165,309,738	68,871,829	240%	297,073,573	113,057,378	256%	288,675,301	128,208,504	225%
	2034	172,502,114	64,185,896	269%	318,009,366	107,076,215	290%	308,985,548	121,437,845	254%
	2035	179,225,217	59,606,855	301%	337,678,361	100,925,829	326%	328,061,070	114,474,475	287%
	2036	185,297,664	55,148,077	336%	355,535,163	94,646,872	366%	345,372,200	107,364,313	322%
	2037	190,493,413	50,821,964	375%	370,417,867	88,290,322	408%	359,793,341	100,164,992	359%
	2038	194,680,492	46,645,051	417%	381,603,841	81,914,375	453%	370,624,372	92,942,354	399%
	2039	197,798,142	42,633,808	464%	389,994,233	75,578,820	502%	378,736,170	85,764,109	442%
	2040	199,672,763	38,801,762	515%	395,576,162	69,342,087	554%	384,115,850	78,696,468	488%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	284,042,001	1,700,247,214	16.7%	282,336,827	1,981,908,891	14.2%	282,336,827	2,047,299,941	13.8%
	Future :	2,608,072,723	1,741,865,729	149.7%	4,333,982,097	2,443,812,737	177.3%	4,211,938,278	2,780,714,733	151.5%
	Lifetime :	2,892,114,725	3,442,112,943	84.0%	4,616,318,924	4,425,721,627	104.3%	4,494,275,105	4,828,014,674	93.1%

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

			Accum Value of Past Initial Prm x 84.0% =	1,545,731,890
			Present Value of Future Initial Prm x 84.0% =	1,469,037,856
Accum. Value of Past Incurred Claims =	282,336,827		Accum Value of Prior Increases x 85.0% =	176,471,622
Present Value of Future Incurred Claims =	4,211,938,278		Present Value of Future Increases x 85.0% =	877,461,400
Total =	4,494,275,105	>=	Total =	4,068,702,768

Exhibit 1A: Pass Losses Exhibit
Care Choice (P-FACE(2002-2))

	Calendar Year	Loss Ratios to Apply to Actual Premium: Incurred Claims	Earned Premium	Incurred Loss Ratio*	Adjusted Expected Incurred Claims	Before Proposed Increase: Incurred Claims	Earned Premium	Incurred Loss Ratio*	With Proposed Rate Increase: Incurred Claims	Earned Premium	Incurred Loss Ratio*
Original Pricing	1988	0	0	0%	-	0	13,818	0%	0	13,818	0%
	1989	0	0	0%	-	0	21,913	0%	0	21,913	0%
	1990	0	0	0%	-	0	208,922	0%	0	208,922	0%
	1991	0	0	0%	-	0	642,881	0%	0	642,881	0%
	1992	0	0	0%	-	0	833,221	0%	0	833,221	0%
	1993	0	0	0%	-	134	991,912	0%	134	991,912	0%
	1994	0	0	0%	-	0	1,864,540	0%	0	1,864,540	0%
	1995	0	0	0%	-	0	2,925,155	0%	0	2,925,155	0%
	1996	0	0	0%	-	12,665	3,371,808	0%	12,665	3,371,808	0%
	1997	0	0	0%	-	0	3,861,964	0%	0	3,861,964	0%
	1998	0	0	0%	-	0	4,095,544	0%	0	4,095,544	0%
	1999	0	0	0%	-	0	5,000,072	0%	0	5,000,072	0%
	2000	0	0	0%	-	0	6,333,535	0%	0	6,333,535	0%
	2001	0	0	0%	-	0	6,960,988	0%	0	6,960,988	0%
	2002	0	0	0%	-	0	7,911,777	0%	0	7,911,777	0%
	2003	509,636	4,845,050	11%	1,446,370	6,454	13,750,467	0%	6,454	13,750,467	0%
	2004	1,673,263	17,363,179	10%	3,655,915	1,783,644	37,936,848	5%	1,783,644	37,936,848	5%
	2005	3,204,184	32,286,572	10%	4,037,553	5,763,357	40,683,914	14%	5,763,357	40,683,914	14%
	2006	5,252,667	49,737,743	11%	6,363,665	6,646,734	60,257,833	11%	6,646,734	60,257,833	11%
	2007	7,698,354	71,433,138	11%	9,744,194	7,713,359	90,416,518	9%	7,713,359	90,416,518	9%
	2008	11,310,542	100,728,070	11%	14,536,237	13,925,013	129,455,072	11%	13,925,013	129,455,072	11%
	2009	16,001,529	132,047,975	12%	15,523,236	17,080,052	128,101,000	13%	17,080,052	128,101,000	13%
2010 RI	2010	20,898,158	137,935,710	15%	23,503,232	18,237,144	155,130,177	12%	18,237,144	155,130,177	12%
	2011	23,168,954	131,911,399	18%	27,392,999	24,516,433	155,960,810	16%	24,516,433	155,960,810	16%
	2012	25,101,280	159,364,080	16%	25,576,522	31,155,792	162,381,317	19%	31,155,792	169,503,029	18%
	2013	27,499,564	164,003,234	17%	31,650,060	31,468,380	188,756,163	17%	31,468,380	199,499,855	16%
	2014	30,325,163	167,089,860	18%	34,361,203	35,292,728	189,328,204	19%	35,292,728	202,592,592	17%
	2015	33,541,896	164,986,241	20%	38,823,796	46,562,193	190,966,910	24%	46,562,193	221,562,503	21%
Projected Future Experience	2016					48,957,649	189,328,627	26%	48,997,886	220,738,237	22%
	2017					54,871,632	186,176,317	29%	54,426,802	215,670,999	25%
	2018					61,526,638	181,819,933	34%	59,765,663	206,005,250	29%
	2019					69,076,897	177,620,137	39%	67,157,159	201,250,911	33%
	2020					77,444,265	173,525,822	45%	75,331,595	196,617,123	38%
	2021					86,783,003	169,498,371	51%	84,438,792	192,060,005	44%
	2022					97,313,027	165,491,781	59%	94,693,791	187,527,302	50%
	2023					109,209,148	161,458,762	68%	106,267,887	182,965,319	58%
	2024					122,312,666	157,363,262	78%	119,009,511	178,333,082	67%
	2025					136,582,022	153,170,176	89%	132,878,846	173,590,686	77%
	2026					152,121,320	148,849,155	102%	147,976,586	168,703,611	88%
	2027					168,975,079	144,372,929	117%	164,346,175	163,640,825	100%
	2028					187,968,475	139,714,975	135%	182,786,695	158,372,139	115%
	2029					208,870,364	134,842,664	155%	203,076,127	152,860,462	133%
	2030					230,569,234	129,740,117	178%	224,138,024	147,087,682	152%
	2031					252,886,942	124,404,599	203%	245,798,103	141,050,568	174%
	2032					275,284,878	118,840,048	232%	267,533,510	134,753,437	199%
	2033					297,073,573	113,057,378	263%	288,675,301	128,208,504	225%
	2034					318,009,366	107,076,215	297%	308,985,548	121,437,845	254%
	2035					337,678,361	100,925,829	335%	328,061,070	114,474,475	287%
	2036					355,535,163	94,646,872	376%	345,372,200	107,364,313	322%
	2037					370,417,867	88,290,322	420%	359,793,341	100,164,992	359%
	2038					381,603,841	81,914,375	466%	370,624,372	92,942,354	399%
	2039					389,994,233	75,578,820	516%	378,736,170	85,764,109	442%
	2040					395,576,162	69,342,087	570%	384,115,850	78,696,468	488%
Value as of 12/31/15*:											
	Past				275,517,809	282,336,827	1,981,908,891	14.2%	282,336,827	2,047,299,941	13.8%
	Future					4,333,982,097	2,443,812,737	177.3%	4,211,938,278	2,780,714,733	151.5%
	Lifetime					4,616,318,924	4,425,721,627	104.3%	4,494,275,105	4,828,014,674	93.1%

*discounted at maximum statutory valuation rates

Test: Total Incurred Claims exceeds the Total Initial Premiums x Original Pricing Loss Ratio (instead of 58%) + Increased Premiums x 85%

			Accum Value of Past Initial Prm x 84.0% =	1,545,731,890
Accum Value of Minimum (Past Incurred Claims, Adjusted Originally Expected Incurred Claims) =	275,517,809		Present Value of Future Initial Prm x 84.0% =	1,469,037,856
			Accum Value of Prior Increases x 85.0% =	176,471,622
Present Value of Future Incurred Claims =	4,211,938,278		Present Value of Future Increases x 85.0% =	877,461,400
Total =	4,487,456,087	> =	Total	4,068,702,768

Exhibit 1b: Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

		Original Assumptions			Historical & Projected Experience				
					Before Proposed Increase			With Proposed Rate Increase	
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	13,818	0%	13,818	0%
	1989	-	-	-	-	21,913	0%	21,913	0%
	1990	-	-	-	-	208,922	0%	208,922	0%
	1991	-	-	-	-	642,881	0%	642,881	0%
	1992	-	-	-	-	833,221	0%	833,221	0%
	1993	-	-	-	126	991,912	0%	991,912	0%
	1994	-	-	-	-	1,864,540	0%	1,864,540	0%
	1995	-	-	-	-	2,925,155	0%	2,925,155	0%
	1996	-	-	-	11,871	3,371,808	0%	3,371,808	0%
	1997	-	-	-	-	3,861,964	0%	3,861,964	0%
	1998	-	-	-	-	4,095,544	0%	4,095,544	0%
	1999	-	-	-	-	5,000,072	0%	5,000,072	0%
	2000	-	-	-	-	6,333,535	0%	6,333,535	0%
	2001	-	-	-	-	6,960,988	0%	6,960,988	0%
	2002	-	-	-	-	7,911,777	0%	7,911,777	0%
	2003	468,926	4,845,050	10%	5,853	13,750,467	0%	13,750,467	0%
	2004	1,539,494	17,363,179	9%	1,639,220	37,936,848	4%	37,936,848	4%
	2005	2,947,864	32,286,572	9%	5,251,471	40,683,914	13%	40,683,914	13%
Historical	2006	4,832,369	49,737,743	10%	6,051,490	60,257,833	10%	60,257,833	10%
Experience	2007	7,082,147	71,433,138	10%	7,022,995	90,416,518	8%	90,416,518	8%
	2008	10,405,157	100,728,070	10%	12,675,266	129,455,072	10%	129,455,072	10%
	2009	14,720,654	132,047,975	11%	15,510,010	128,101,000	12%	128,101,000	12%
	2010	20,028,366	161,765,338	12%	16,685,059	155,130,177	11%	155,130,177	11%
	2011	24,380,082	170,064,912	14%	22,582,300	155,960,810	14%	155,960,810	14%
	2012	28,426,547	170,405,024	17%	28,596,208	162,381,317	18%	169,503,029	17%
	2013	32,048,327	167,680,808	19%	29,060,009	188,756,163	15%	199,499,855	15%
	2014	35,976,517	163,539,147	22%	32,605,203	189,328,204	17%	202,592,592	16%
	2015	40,688,248	161,758,945	25%	43,035,701	190,966,910	23%	221,562,503	19%
	2016	45,443,141	157,106,737	29%	45,697,015	189,328,627	24%	220,738,237	21%
	2017	50,045,934	151,404,073	33%	51,319,047	186,176,317	28%	215,670,999	24%
Projected	2018	54,595,522	145,882,536	37%	57,638,683	181,819,933	32%	206,005,250	27%
Future	2019	59,219,947	140,452,085	42%	64,794,288	177,620,137	36%	201,250,911	31%
Experience	2020	64,163,785	135,101,163	47%	72,708,792	173,525,822	42%	196,617,123	36%
	2021	69,525,229	129,779,641	54%	81,530,253	169,498,371	48%	192,060,005	41%
	2022	75,185,229	124,496,299	60%	91,474,318	165,491,781	55%	187,527,302	47%
	2023	81,220,116	119,242,055	68%	102,710,345	161,458,762	64%	182,965,319	55%
	2024	87,634,211	114,014,082	77%	115,088,081	157,363,262	73%	178,333,082	63%
	2025	94,369,881	108,820,337	87%	128,560,159	153,170,176	84%	173,590,686	72%
	2026	101,363,611	103,660,401	98%	143,225,987	148,849,155	96%	168,703,611	83%
	2027	108,576,128	98,537,013	110%	159,137,259	144,372,929	110%	163,640,825	95%
	2028	115,911,684	93,454,094	124%	177,074,112	139,714,975	127%	158,372,139	109%
	2029	123,306,845	88,417,685	139%	196,815,776	134,842,664	146%	152,860,462	125%
	2030	130,688,557	83,433,868	157%	217,313,708	129,740,117	167%	147,087,682	144%
	2031	137,979,866	78,509,185	176%	238,400,520	124,404,599	192%	141,050,568	164%
	2032	145,121,828	73,651,121	197%	259,585,610	118,840,048	218%	134,753,437	187%
	2033	152,037,981	68,871,829	221%	280,226,741	113,057,378	248%	128,208,504	212%
	2034	158,649,790	64,185,896	247%	300,071,296	107,076,215	280%	121,437,845	240%
	2035	164,829,682	59,606,855	277%	318,718,575	100,925,829	316%	114,474,475	271%
	2036	170,410,906	55,148,077	309%	335,657,957	94,646,872	355%	107,364,313	304%
	2037	175,185,635	50,821,964	345%	349,819,565	88,290,322	396%	100,164,992	339%
	2038	179,032,559	46,645,051	384%	360,518,696	81,914,375	440%	92,942,354	377%
	2039	181,895,862	42,633,808	427%	368,563,544	75,578,820	488%	85,764,109	417%
	2040	183,615,985	38,801,762	473%	373,937,733	69,342,087	539%	78,696,468	461%
Values as of 12/31/2015 (discounted at original pricing interest rate)									
	Past :	284,821,332	1,891,737,990	15.1%	283,775,836	2,239,627,493	12.7%	2,307,233,670	12.3%
	Future :	1,580,258,735	1,434,796,428	110.1%	2,585,709,679	1,973,355,990	131.0%	2,246,984,091	111.9%
	Lifetime :	1,865,080,067	3,326,534,418	56.1%	2,869,485,516	4,212,983,483	68.1%	4,554,217,761	61.5%

Net Level Premium Reserves (based on original pricing assumptions and discount rates)	**815,101,377**
Future Loss Ratio adjusted for Net Level Premium Reserves	**76%**

Appendix A - Comparison to New Business Rates (Care Choice P-FACE (2002-2))

Rates shown are for a 90-day EP, 75% HHC benefit, and are per $5 monthly benefit

Inflation Option: Future Purchase Option

New Business Rates adjusted for Benefit Differences* :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	0.88	1.02	1.09	1.11	1.24	1.31	1.51	2.17	2.45
30	0.93	1.07	1.16	1.17	1.29	1.37	1.58	2.17	2.45
31	0.99	1.14	1.16	1.17	1.29	1.37	1.58	2.17	2.45
32	0.99	1.14	1.19	1.22	1.36	1.43	1.66	2.22	2.54
33	0.99	1.14	1.19	1.22	1.36	1.43	1.66	2.22	2.54
34	0.99	1.14	1.23	1.28	1.43	1.51	1.75	2.37	2.72
35	0.99	1.14	1.23	1.28	1.43	1.51	1.75	2.38	2.75
36	0.99	1.14	1.23	1.28	1.43	1.51	1.75	2.40	2.78
37	0.99	1.14	1.26	1.35	1.50	1.59	1.84	2.40	2.78
38	0.99	1.15	1.26	1.35	1.51	1.59	1.84	2.57	2.99
39	0.99	1.15	1.26	1.35	1.53	1.61	1.87	2.62	3.06
40	0.99	1.15	1.26	1.37	1.54	1.63	1.88	2.66	3.11
41	1.02	1.22	1.28	1.39	1.59	1.68	1.94	2.76	3.24
42	1.02	1.23	1.40	1.52	1.73	1.83	2.12	2.87	3.38
43	1.10	1.34	1.42	1.55	1.78	1.89	2.18	2.98	3.51
44	1.21	1.36	1.55	1.70	1.85	1.95	2.26	3.11	3.67
45	1.32	1.48	1.59	1.74	2.01	2.13	2.46	3.24	3.83
46	1.34	1.51	1.75	1.81	2.10	2.22	2.57	3.41	4.03
47	1.48	1.66	1.80	1.87	2.19	2.31	2.68	3.58	4.24
48	1.61	1.72	1.88	2.05	2.40	2.54	2.94	3.79	4.50
49	1.64	1.87	2.06	2.14	2.51	2.65	3.07	3.85	4.58
50	1.80	1.94	2.14	2.23	2.64	2.79	3.23	4.08	4.86
51	1.87	2.02	2.27	2.39	2.83	2.99	3.46	4.27	5.10
52	2.05	2.24	2.50	2.53	3.03	3.20	3.71	4.61	5.36
53	2.13	2.36	2.64	2.82	3.38	3.58	4.14	4.86	5.66
54	2.37	2.63	2.94	3.00	3.62	3.83	4.43	5.11	5.97
55	2.45	2.76	3.11	3.22	3.89	4.11	4.76	5.40	6.32
56	2.59	3.00	3.27	3.41	4.13	4.36	5.05	5.84	6.70
57	2.76	3.12	3.60	3.63	4.38	4.63	5.36	6.16	7.10
58	2.96	3.40	3.80	3.86	4.55	4.81	5.56	6.55	7.58
59	3.01	3.57	4.06	4.15	4.87	5.15	5.96	6.97	7.94
60	3.24	3.78	4.35	4.47	5.12	5.41	6.26	7.47	8.40
61	3.47	4.14	4.62	4.81	5.56	5.88	6.81	8.11	9.18
62	3.73	4.40	5.07	5.21	6.09	6.44	7.46	8.88	9.96
63	3.93	4.87	5.45	5.67	6.69	7.07	8.18	9.60	10.99
64	4.29	5.25	5.74	6.20	7.39	7.82	9.05	10.47	11.88
65	4.57	5.71	6.26	6.66	8.03	8.49	9.83	11.44	13.06
66	5.03	6.22	6.76	7.28	8.58	9.07	10.50	12.39	14.22
67	5.44	6.73	7.40	7.88	9.10	9.62	11.13	13.34	15.41
68	5.95	7.18	8.02	8.62	9.77	10.33	11.96	14.51	16.68
69	6.55	7.90	8.79	9.38	10.34	10.93	12.66	15.59	18.20
70	7.15	8.47	9.57	10.15	11.07	11.70	13.54	16.90	19.81
71	7.93	9.34	10.45	11.26	12.03	12.72	14.72	18.93	21.95
72	8.76	10.27	11.45	12.49	13.11	13.86	16.05	21.19	24.35
73	9.69	11.31	12.56	13.79	14.33	15.15	17.54	23.70	27.04
74	10.81	12.45	13.69	15.38	15.63	16.52	19.13	26.56	30.14
75	11.90	13.78	14.99	16.99	17.09	18.07	20.92	29.72	33.42
76	13.23	15.53	16.99	19.32	19.37	20.48	23.71	33.52	37.69
77	14.79	17.59	19.22	21.82	21.96	23.22	26.88	38.06	42.64
78	16.50	19.77	21.73	24.79	24.92	26.35	30.50	42.94	48.20
79	18.43	22.36	24.59	28.07	28.22	29.83	34.53	48.63	54.53
80	30.56	25.18	27.88	31.85	32.05	33.88	39.22	54.92	61.61
81	32.99	27.66	30.66	35.05	35.29	37.30	43.18	60.37	67.74
82	35.25	29.90	33.19	37.87	38.18	40.36	46.72	65.30	73.32
83	38.28	33.41	37.03	42.34	42.63	45.07	52.17	72.98	81.86
84	41.09	36.55	40.51	46.43	46.74	49.41	57.20	79.94	89.68

P-FACE (2002-2) Rates after Requested Rate Increases

excluding additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	0.44	0.53	0.56	0.59	0.61	0.63	0.66	0.88	0.94
30	0.44	0.53	0.56	0.59	0.61	0.63	0.66	0.88	0.94
31	0.46	0.55	0.58	0.61	0.64	0.66	0.68	0.91	0.97
32	0.47	0.57	0.61	0.63	0.66	0.68	0.71	0.95	1.01
33	0.49	0.59	0.63	0.66	0.69	0.71	0.74	0.98	1.05
34	0.51	0.61	0.65	0.68	0.71	0.73	0.76	1.02	1.09
35	0.53	0.63	0.67	0.71	0.74	0.76	0.79	1.06	1.13
36	0.55	0.65	0.70	0.73	0.77	0.79	0.82	1.10	1.17
37	0.57	0.67	0.72	0.76	0.80	0.82	0.85	1.14	1.21
38	0.59	0.70	0.75	0.79	0.83	0.85	0.89	1.18	1.26
39	0.61	0.72	0.78	0.82	0.86	0.88	0.92	1.22	1.31
40	0.63	0.75	0.81	0.85	0.89	0.92	0.95	1.27	1.36
41	0.67	0.79	0.85	0.90	0.94	0.97	1.01	1.34	1.44
42	0.71	0.83	0.90	0.95	1.00	1.03	1.07	1.42	1.52
43	0.74	0.87	0.95	1.01	1.05	1.09	1.13	1.51	1.61
44	0.78	0.92	1.01	1.06	1.12	1.15	1.20	1.59	1.70
45	0.81	0.97	1.06	1.13	1.18	1.22	1.27	1.69	1.80
46	0.86	1.03	1.13	1.20	1.26	1.30	1.35	1.80	1.92
47	0.92	1.09	1.21	1.28	1.34	1.38	1.44	1.91	2.04
48	0.98	1.16	1.28	1.36	1.43	1.47	1.53	2.04	2.18
49	1.04	1.24	1.36	1.45	1.52	1.57	1.63	2.17	2.32
50	1.11	1.31	1.45	1.55	1.62	1.67	1.74	2.31	2.47
51	1.18	1.40	1.55	1.65	1.73	1.79	1.86	2.48	2.64
52	1.26	1.50	1.66	1.77	1.86	1.91	1.99	2.65	2.83
53	1.34	1.60	1.78	1.89	1.99	2.05	2.13	2.84	3.03
54	1.43	1.71	1.90	2.03	2.13	2.19	2.28	3.04	3.24
55	1.52	1.82	2.03	2.17	2.28	2.34	2.44	3.25	3.47
56	1.65	1.98	2.21	2.37	2.48	2.56	2.66	3.54	3.78
57	1.80	2.16	2.41	2.58	2.70	2.79	2.90	3.85	4.13
58	1.95	2.35	2.63	2.81	2.95	3.04	3.17	4.14	4.50
59	2.12	2.55	2.86	3.04	3.20	3.31	3.45	4.44	4.91
60	2.31	2.78	3.11	3.27	3.44	3.61	3.76	4.78	5.30
61	2.53	3.05	3.38	3.56	3.74	3.95	4.15	5.19	5.76
62	2.75	3.33	3.67	3.87	4.06	4.29	4.58	5.65	6.27
63	2.99	3.62	3.99	4.20	4.42	4.67	5.05	6.14	6.81
64	3.25	3.93	4.34	4.57	4.80	5.07	5.57	6.67	7.41
65	3.53	4.27	4.72	4.97	5.22	5.52	6.14	7.26	8.05
66	3.85	4.66	5.15	5.42	5.69	6.01	6.78	7.91	8.78
67	4.19	5.08	5.61	5.90	6.20	6.55	7.49	8.62	9.56
68	4.57	5.53	6.11	6.43	6.76	7.14	8.27	9.39	10.42
69	4.98	6.03	6.66	7.01	7.36	7.78	9.01	10.24	11.36
70	5.43	6.57	7.26	7.64	8.03	8.48	9.82	11.16	12.38
71	6.09	7.38	8.15	8.58	9.01	9.52	11.03	12.53	13.90
72	6.84	8.28	9.15	9.63	10.11	10.69	12.27	13.89	14.84
73	7.55	9.30	10.27	10.81	11.35	12.00	13.53	14.78	15.79
74	8.28	10.44	11.53	12.14	12.75	13.48	14.93	15.70	16.77
75	8.82	11.39	12.95	13.63	14.31	15.13	16.01	16.65	17.79
76	9.28	12.06	13.87	15.07	15.80	16.28	16.96	17.64	18.84
77	9.75	12.75	14.66	15.94	16.70	17.21	17.93	18.65	19.92
78	10.22	13.45	15.47	16.82	17.62	18.16	18.92	19.68	21.02
79	10.69	14.17	16.29	17.71	18.56	19.13	19.92	20.72	22.14
80	11.16	14.89	17.12	18.61	19.50	20.10	20.93	21.77	23.26
81	12.28	16.37	18.83	20.47	21.45	22.11	23.03	23.95	25.58
82	13.40	17.86	20.54	22.33	23.40	24.11	25.12	26.12	27.91
83	14.85	19.80	22.77	24.75	25.94	26.73	27.84	28.95	30.93
84	16.30	21.73	24.99	27.17	28.47	29.34	30.56	31.78	33.96

<u>* Benefit Differences between P-FACE (2002-2) and P-FACE (2009):</u>

- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a cor
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifet
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix A - Comparison to New Business Rates (Care Choice P-FACE (2002-2))

Rates shown are for a 90-day EP, 75% HHC benefit, and are per $5 monthly benefit

Inflation Option: Future Purchase Option

P-FACE (2002-2) Rates after Requested Rate Increases

including additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	0.44	0.53	0.57	0.59	0.62	0.64	0.67	0.89	0.96
30	0.44	0.53	0.57	0.59	0.62	0.64	0.67	0.89	0.96
31	0.46	0.55	0.59	0.61	0.64	0.66	0.69	0.93	0.99
32	0.48	0.57	0.61	0.64	0.67	0.69	0.72	0.96	1.03
33	0.49	0.59	0.63	0.66	0.69	0.71	0.74	1.00	1.07
34	0.51	0.61	0.66	0.69	0.72	0.74	0.77	1.04	1.11
35	0.53	0.63	0.68	0.71	0.75	0.77	0.80	1.07	1.15
36	0.55	0.66	0.71	0.74	0.77	0.80	0.83	1.11	1.19
37	0.57	0.68	0.73	0.77	0.80	0.83	0.86	1.16	1.24
38	0.59	0.70	0.76	0.79	0.83	0.86	0.90	1.20	1.28
39	0.62	0.73	0.79	0.82	0.86	0.89	0.93	1.24	1.33
40	0.64	0.75	0.81	0.86	0.90	0.93	0.96	1.29	1.38
41	0.68	0.79	0.86	0.91	0.95	0.98	1.02	1.37	1.46
42	0.72	0.84	0.91	0.96	1.00	1.04	1.08	1.45	1.55
43	0.75	0.88	0.96	1.02	1.06	1.10	1.14	1.53	1.64
44	0.78	0.93	1.02	1.07	1.13	1.16	1.21	1.62	1.74
45	0.82	0.98	1.07	1.14	1.19	1.23	1.28	1.72	1.84
46	0.87	1.04	1.14	1.21	1.27	1.31	1.37	1.83	1.96
47	0.93	1.10	1.22	1.29	1.35	1.39	1.45	1.95	2.08
48	0.99	1.17	1.29	1.37	1.44	1.49	1.55	2.07	2.22
49	1.05	1.25	1.38	1.46	1.53	1.58	1.65	2.21	2.36
50	1.12	1.33	1.47	1.56	1.63	1.69	1.76	2.35	2.52
51	1.19	1.42	1.57	1.67	1.75	1.80	1.88	2.52	2.70
52	1.27	1.51	1.68	1.79	1.87	1.93	2.01	2.70	2.89
53	1.35	1.61	1.79	1.91	2.00	2.07	2.15	2.89	3.09
54	1.44	1.72	1.92	2.05	2.14	2.21	2.31	3.09	3.31
55	1.53	1.84	2.05	2.19	2.30	2.37	2.47	3.31	3.54
56	1.67	2.00	2.23	2.39	2.50	2.58	2.69	3.60	3.85
57	1.81	2.18	2.43	2.60	2.73	2.81	2.93	3.91	4.20
58	1.97	2.37	2.65	2.83	2.97	3.06	3.20	4.20	4.58
59	2.14	2.57	2.88	3.07	3.22	3.34	3.49	4.51	4.99
60	2.33	2.80	3.13	3.29	3.46	3.64	3.80	4.85	5.39
61	2.54	3.08	3.40	3.58	3.76	3.98	4.19	5.27	5.85
62	2.77	3.35	3.70	3.89	4.08	4.32	4.62	5.72	6.36
63	3.01	3.64	4.02	4.23	4.44	4.70	5.10	6.22	6.91
64	3.27	3.96	4.37	4.59	4.82	5.10	5.62	6.76	7.51
65	3.55	4.30	4.75	4.99	5.24	5.55	6.19	7.34	8.16
66	3.87	4.68	5.17	5.44	5.71	6.04	6.83	8.00	8.89
67	4.22	5.10	5.63	5.93	6.22	6.58	7.54	8.71	9.68
68	4.59	5.56	6.14	6.46	6.78	7.17	8.33	9.49	10.55
69	5.01	6.06	6.69	7.03	7.38	7.81	9.07	10.34	11.49
70	5.46	6.60	7.29	7.66	8.05	8.51	9.88	11.26	12.51
71	6.13	7.42	8.18	8.61	9.04	9.56	11.10	12.65	14.06
72	6.89	8.33	9.19	9.67	10.15	10.74	12.36	14.03	14.99
73	7.61	9.36	10.32	10.86	11.40	12.06	13.64	14.91	15.93
74	8.34	10.51	11.60	12.19	12.80	13.55	15.05	15.82	16.90
75	8.88	11.46	13.02	13.70	14.38	15.22	16.11	16.76	17.90
76	9.33	12.12	13.94	15.15	15.88	16.36	17.04	17.73	18.94
77	9.79	12.80	14.72	16.00	16.76	17.28	18.00	18.72	20.00
78	10.25	13.49	15.51	16.86	17.67	18.21	18.97	19.73	21.07
79	10.71	14.19	16.31	17.73	18.58	19.15	19.95	20.75	22.16
80	11.16	14.89	17.12	18.61	19.50	20.10	20.93	21.77	23.26
81	12.28	16.37	18.83	20.47	21.45	22.11	23.03	23.95	25.58
82	13.40	17.86	20.54	22.33	23.40	24.11	25.12	26.12	27.91
83	14.85	19.80	22.77	24.75	25.94	26.73	27.84	28.95	30.93
84	16.30	21.73	24.99	27.17	28.47	29.34	30.56	31.78	33.96

P-FACE (2002-2) 2016 Rate Increases (%) :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	16%	17%	17%	17%	17%	17%	17%	18%	18%
30	16%	17%	17%	17%	17%	17%	17%	18%	18%
31	16%	17%	17%	17%	17%	17%	17%	18%	18%
32	16%	17%	17%	17%	17%	17%	17%	18%	18%
33	16%	17%	17%	17%	17%	17%	17%	18%	18%
34	16%	17%	17%	17%	17%	17%	17%	18%	18%
35	16%	17%	17%	17%	17%	17%	17%	18%	18%
36	16%	17%	17%	17%	17%	17%	17%	18%	18%
37	16%	17%	17%	17%	17%	17%	17%	18%	18%
38	17%	17%	17%	17%	17%	17%	17%	18%	18%
39	17%	17%	17%	17%	17%	17%	17%	18%	18%
40	17%	17%	17%	17%	17%	17%	17%	18%	18%
41	17%	17%	17%	17%	17%	17%	17%	18%	18%
42	17%	17%	17%	17%	17%	17%	17%	18%	18%
43	17%	17%	17%	17%	17%	17%	17%	18%	18%
44	17%	17%	17%	17%	17%	17%	17%	18%	18%
45	17%	17%	17%	17%	17%	17%	17%	18%	18%
46	17%	17%	17%	17%	17%	17%	17%	18%	18%
47	17%	17%	17%	17%	17%	17%	17%	18%	18%
48	17%	17%	17%	17%	17%	17%	17%	18%	18%
49	17%	17%	17%	17%	17%	17%	17%	18%	18%
50	17%	17%	17%	17%	17%	17%	17%	18%	18%
51	17%	17%	17%	17%	17%	17%	17%	18%	18%
52	17%	17%	17%	17%	17%	17%	17%	18%	18%
53	17%	17%	17%	17%	17%	17%	17%	18%	18%
54	17%	17%	17%	17%	17%	17%	17%	18%	18%
55	17%	17%	17%	17%	17%	17%	17%	18%	18%
56	17%	17%	17%	17%	17%	17%	17%	18%	18%
57	17%	17%	17%	17%	17%	17%	17%	18%	18%
58	17%	17%	17%	17%	17%	17%	17%	18%	18%
59	17%	17%	17%	17%	17%	17%	17%	18%	18%
60	17%	17%	17%	17%	17%	17%	17%	18%	18%
61	17%	17%	17%	17%	17%	17%	17%	17%	18%
62	17%	17%	17%	16%	16%	17%	17%	17%	18%
63	17%	17%	17%	16%	16%	17%	17%	17%	17%
64	17%	17%	16%	16%	16%	16%	17%	17%	17%
65	17%	16%	16%	16%	16%	16%	17%	17%	17%
66	17%	16%	16%	16%	16%	16%	17%	17%	17%
67	17%	16%	16%	16%	16%	16%	17%	17%	17%
68	16%	16%	16%	16%	16%	16%	17%	17%	17%
69	16%	16%	16%	16%	16%	16%	17%	17%	17%
70	16%	16%	16%	16%	16%	16%	17%	17%	17%
71	17%	16%	16%	16%	16%	16%	17%	17%	17%
72	17%	16%	16%	16%	16%	16%	17%	17%	17%
73	17%	17%	16%	16%	16%	16%	17%	17%	17%
74	17%	17%	16%	16%	16%	16%	17%	17%	17%
75	17%	17%	17%	16%	16%	17%	17%	17%	17%
76	16%	16%	16%	16%	16%	16%	16%	16%	16%
77	16%	16%	16%	16%	16%	16%	16%	16%	16%
78	16%	16%	16%	16%	16%	16%	16%	16%	16%
79	16%	16%	16%	16%	16%	16%	16%	16%	16%
80	16%	16%	16%	16%	16%	16%	16%	16%	16%
81	16%	16%	16%	16%	16%	16%	16%	16%	16%
82	16%	16%	16%	16%	16%	16%	16%	16%	16%
83	16%	16%	16%	16%	16%	16%	16%	16%	16%
84	16%	16%	16%	16%	16%	16%	16%	16%	16%

<u>* Benefit Differences between P-FACE (2002-2) and P-FACE (2009):</u>

- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a cor
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifet
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix A - Comparison to New Business Rates (Care Choice P-FACE (2002-2))

Rates shown are for a 90-day EP, 75% HHC benefit, and are per $5 monthly benefit

Inflation Option: ABI (5% Compound Inflation)

New Business Rates adjusted for Benefit Differences* :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
30	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
31	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
32	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
33	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
34	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
35	6.94	8.59	9.14	9.74	11.26	11.79	13.58	15.32	16.66
36	7.10	8.60	9.14	9.74	11.30	11.83	13.63	15.42	16.66
37	7.11	8.79	9.14	9.79	11.39	11.93	13.74	15.44	16.66
38	7.11	8.84	9.15	9.87	11.48	12.01	13.84	15.62	16.77
39	7.26	8.87	9.20	9.94	11.57	12.12	13.96	15.65	16.85
40	7.27	8.91	9.28	10.03	11.66	12.21	14.07	15.83	16.91
41	7.38	9.07	9.50	10.28	12.04	12.61	14.53	16.41	17.54
42	7.65	9.21	9.74	10.53	12.43	13.01	14.98	16.82	18.18
43	7.77	9.38	9.98	10.79	12.83	13.43	15.47	17.43	18.86
44	8.06	9.72	10.39	11.22	13.23	13.85	15.96	17.87	19.37
45	8.19	9.88	10.64	11.50	13.67	14.32	16.49	18.53	20.11
46	8.35	10.10	10.95	11.84	14.16	14.83	17.08	19.09	20.92
47	8.70	10.33	11.29	12.19	14.51	15.19	17.50	19.86	21.79
48	8.87	10.57	11.62	12.55	15.06	15.76	18.16	20.49	22.52
49	9.24	10.81	11.96	12.92	15.59	16.33	18.81	21.29	23.42
50	9.42	11.06	12.33	13.31	16.17	16.93	19.50	21.96	24.38
51	9.66	11.34	12.67	13.53	16.59	17.37	20.01	22.41	24.92
52	9.91	11.65	13.05	13.93	16.83	17.62	20.30	22.88	25.47
53	10.37	11.96	13.26	14.15	17.27	18.08	20.82	23.54	26.03
54	10.64	12.31	13.63	14.56	17.53	18.35	21.14	24.04	26.62
55	10.93	12.65	14.04	14.83	17.98	18.83	21.69	24.53	27.20
56	11.00	12.85	14.29	15.08	18.35	19.21	22.13	24.98	27.55
57	11.27	13.27	14.57	15.33	18.71	19.59	22.56	25.22	27.89
58	11.35	13.49	14.84	15.60	19.12	20.02	23.06	25.73	28.31
59	11.65	13.76	14.95	15.69	19.32	20.22	23.29	26.21	28.51
60	11.76	14.03	15.27	15.97	19.76	20.68	23.83	26.57	28.99
61	11.88	14.35	15.64	16.36	19.96	20.89	24.07	26.75	29.30
62	12.00	14.84	16.07	16.58	19.99	20.93	24.11	26.79	29.63
63	12.15	15.26	16.36	17.03	20.08	21.02	24.21	26.89	30.03
64	12.36	15.50	16.85	17.34	20.20	21.15	24.36	27.05	30.47
65	12.55	15.97	17.24	17.69	20.36	21.31	24.55	27.25	30.78
66	13.23	16.86	18.19	18.65	21.50	22.51	25.93	29.42	32.98
67	14.10	17.66	19.10	19.71	22.62	23.68	27.27	31.81	35.40
68	14.89	18.52	20.08	20.89	23.89	25.01	28.82	34.27	37.90
69	15.62	19.46	21.18	22.06	25.17	26.35	30.35	36.98	40.66
70	16.57	20.52	22.19	23.33	26.62	27.87	32.11	39.97	43.53
71	18.04	22.00	23.40	24.63	27.82	29.12	33.55	42.09	46.20
72	19.60	23.66	24.59	25.89	29.29	30.66	35.33	44.44	48.93
73	21.29	25.29	25.80	27.33	30.62	32.05	36.92	46.83	51.75
74	23.33	27.11	27.18	28.94	32.09	33.59	38.70	49.30	54.84
75	25.33	29.16	28.61	30.47	33.63	35.21	40.56	51.94	58.13
76	26.92	31.20	30.52	32.35	35.78	37.45	43.15	55.46	61.80
77	28.48	33.19	32.56	34.40	38.13	39.91	45.98	59.19	65.60
78	30.19	35.46	34.78	36.54	40.71	42.62	49.10	63.19	69.76
79	32.00	37.89	37.08	38.82	43.34	45.37	52.26	67.37	74.19
80	49.88	40.51	39.62	41.27	46.17	48.33	55.68	71.95	78.82
81	52.80	44.52	43.61	45.40	50.78	53.16	61.24	79.16	86.73
82	55.54	48.14	47.17	49.11	54.96	57.54	66.29	85.66	93.79
83	59.31	53.79	52.67	54.89	61.36	64.23	74.00	95.60	104.71
84	62.67	58.91	57.73	60.15	67.21	70.36	81.05	104.68	114.63

P-FACE (2002-2) Rates after Requested Rate Increases

excluding additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	2.57	2.82	3.01	3.14	3.29	3.39	3.53	4.27	4.56
30	2.57	2.82	3.01	3.14	3.29	3.39	3.53	4.27	4.56
31	2.65	2.92	3.12	3.26	3.41	3.52	3.66	4.43	4.73
32	2.74	3.03	3.24	3.38	3.54	3.65	3.80	4.60	4.91
33	2.82	3.13	3.36	3.51	3.67	3.79	3.94	4.77	5.09
34	2.91	3.24	3.48	3.64	3.81	3.93	4.09	4.95	5.29
35	3.00	3.36	3.61	3.77	3.95	4.08	4.24	5.13	5.48
36	3.09	3.48	3.74	3.92	4.10	4.23	4.40	5.33	5.69
37	3.19	3.60	3.88	4.06	4.26	4.39	4.57	5.53	5.90
38	3.29	3.73	4.02	4.21	4.42	4.55	4.74	5.73	6.13
39	3.39	3.86	4.17	4.37	4.58	4.72	4.92	5.95	6.36
40	3.49	3.99	4.32	4.54	4.76	4.90	5.10	6.17	6.60
41	3.55	4.10	4.44	4.68	4.90	5.05	5.26	6.36	6.80
42	3.61	4.20	4.57	4.82	5.05	5.21	5.42	6.56	7.01
43	3.67	4.31	4.70	4.97	5.21	5.36	5.59	6.76	7.22
44	3.74	4.42	4.84	5.12	5.36	5.53	5.76	6.96	7.44
45	3.80	4.54	4.98	5.28	5.53	5.70	5.94	7.18	7.67
46	3.95	4.71	5.17	5.49	5.75	5.92	6.17	7.46	7.97
47	4.11	4.88	5.37	5.70	5.98	6.16	6.42	7.76	8.29
48	4.27	5.06	5.58	5.93	6.21	6.40	6.67	8.07	8.62
49	4.44	5.25	5.80	6.16	6.46	6.66	6.93	8.38	8.96
50	4.61	5.45	6.02	6.41	6.72	6.92	7.21	8.72	9.31
51	4.81	5.70	6.31	6.72	7.04	7.26	7.56	9.14	9.77
52	5.02	5.96	6.61	7.05	7.39	7.61	7.93	9.59	10.24
53	5.23	6.24	6.93	7.39	7.75	7.98	8.32	10.06	10.74
54	5.46	6.53	7.26	7.75	8.12	8.37	8.72	10.55	11.27
55	5.69	6.83	7.61	8.13	8.52	8.78	9.15	11.06	11.82
56	6.10	7.32	8.17	8.73	9.15	9.43	9.83	11.88	12.69
57	6.53	7.84	8.77	9.38	9.76	10.13	10.55	12.76	13.64
58	6.99	8.41	9.41	9.81	10.10	10.57	11.34	13.71	14.65
59	7.34	8.89	9.83	10.15	10.45	10.94	12.18	14.25	15.66
60	7.60	9.21	10.17	10.50	10.82	11.33	13.05	14.75	16.21
61	7.92	9.59	10.60	10.94	11.27	11.80	13.59	15.37	16.89
62	8.25	9.99	11.04	11.40	11.74	12.30	14.16	16.01	17.59
63	8.60	10.41	11.50	11.88	12.24	12.81	14.76	16.68	18.33
64	8.95	10.85	11.98	12.38	12.75	13.35	15.37	17.38	18.97
65	9.33	11.30	12.48	12.89	13.28	13.90	16.02	18.11	19.49
66	9.75	11.81	13.05	13.48	13.89	14.54	16.75	18.93	20.27
67	10.20	12.35	13.64	14.09	14.52	15.20	17.51	19.72	21.07
68	10.66	12.91	14.26	14.73	15.18	15.89	18.30	20.48	21.88
69	11.14	13.50	14.91	15.40	15.87	16.61	19.13	21.24	22.69
70	11.65	14.11	15.59	16.10	16.59	17.36	20.00	22.01	23.51
71	12.53	15.25	16.85	17.41	17.93	18.77	21.62	23.05	24.62
72	13.02	16.48	18.21	18.81	19.38	20.29	23.18	24.11	25.75
73	13.51	17.22	19.68	20.33	20.94	21.93	24.21	25.18	26.90
74	14.00	17.96	20.66	21.98	22.64	23.70	25.26	26.27	28.06
75	14.49	18.71	21.52	23.39	24.47	25.26	26.31	27.36	29.23
76	14.97	19.46	22.38	24.32	25.49	26.27	27.36	28.46	30.40
77	15.45	20.20	23.23	25.25	26.46	27.27	28.40	29.54	31.56
78	15.90	20.93	24.07	26.16	27.42	28.26	29.43	30.61	32.70
79	16.34	21.64	24.89	27.05	28.35	29.22	30.43	31.65	33.82
80	16.75	22.33	25.68	27.91	29.25	30.14	31.40	32.66	34.89
81	18.42	24.56	28.25	30.70	32.18	33.16	34.54	35.92	38.38
82	20.10	26.79	30.81	33.49	35.10	36.17	37.68	39.19	41.87
83	22.27	29.70	34.15	37.12	38.90	40.09	41.76	43.43	46.40
84	24.45	32.60	37.49	40.75	42.71	44.01	45.84	47.68	50.94

* Benefit Differences between P-FACE (2002-2) and P-FACE (2009):

- The P-FACE (2009) ABI option increases the benefits and remaining LMB by 5% per year compounded. The P-FACE (2002-2) ABI option increases the DMB by 5% per year; the new LMB is calculated as the DMB
- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a cor
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifet
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix A - Comparison to New Business Rates (Care Choice P-FACE (2002-2))

Rates shown are for a 90-day EP, 75% HHC benefit, and are per $5 monthly benefit

Inflation Option: ABI (5% Compound Inflation)

P-FACE (2002-2) Rates after Requested Rate Increases

including additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	2.62	2.88	3.07	3.20	3.35	3.45	3.60	4.38	4.68
30	2.62	2.88	3.07	3.20	3.35	3.45	3.60	4.38	4.68
31	2.70	2.98	3.18	3.32	3.48	3.58	3.73	4.54	4.85
32	2.79	3.09	3.30	3.44	3.61	3.72	3.87	4.71	5.03
33	2.87	3.19	3.42	3.57	3.74	3.86	4.02	4.89	5.22
34	2.96	3.31	3.55	3.71	3.88	4.00	4.17	5.07	5.42
35	3.06	3.42	3.68	3.85	4.03	4.15	4.33	5.26	5.62
36	3.15	3.54	3.81	3.99	4.18	4.31	4.49	5.46	5.83
37	3.25	3.67	3.95	4.14	4.34	4.47	4.66	5.67	6.05
38	3.35	3.80	4.10	4.30	4.50	4.64	4.83	5.88	6.28
39	3.45	3.93	4.25	4.46	4.67	4.81	5.01	6.10	6.52
40	3.56	4.07	4.40	4.63	4.85	5.00	5.20	6.33	6.76
41	3.62	4.18	4.53	4.77	5.00	5.15	5.36	6.52	6.97
42	3.68	4.28	4.66	4.91	5.15	5.31	5.53	6.72	7.18
43	3.74	4.39	4.80	5.06	5.31	5.47	5.70	6.93	7.40
44	3.81	4.51	4.93	5.22	5.47	5.64	5.87	7.14	7.63
45	3.87	4.62	5.08	5.38	5.64	5.81	6.05	7.36	7.86
46	4.03	4.80	5.27	5.59	5.86	6.04	6.29	7.65	8.17
47	4.18	4.98	5.48	5.81	6.09	6.28	6.54	7.95	8.50
48	4.35	5.16	5.69	6.04	6.33	6.53	6.80	8.27	8.84
49	4.52	5.35	5.91	6.28	6.58	6.78	7.07	8.60	9.19
50	4.70	5.55	6.14	6.53	6.84	7.05	7.35	8.94	9.55
51	4.90	5.81	6.43	6.85	7.18	7.40	7.71	9.37	10.02
52	5.11	6.08	6.74	7.18	7.53	7.76	8.08	9.83	10.50
53	5.33	6.36	7.06	7.53	7.90	8.14	8.48	10.31	11.02
54	5.56	6.65	7.40	7.90	8.28	8.53	8.89	10.81	11.55
55	5.80	6.96	7.76	8.29	8.68	8.95	9.32	11.34	12.12
56	6.21	7.46	8.33	8.90	9.33	9.61	10.01	12.18	13.02
57	6.66	7.99	8.94	9.56	9.93	10.32	10.76	13.09	13.98
58	7.13	8.57	9.58	9.97	10.26	10.75	11.56	14.06	15.02
59	7.47	9.05	9.99	10.31	10.61	11.11	12.42	14.59	16.05
60	7.72	9.36	10.33	10.65	10.96	11.49	13.29	15.08	16.59
61	8.04	9.74	10.75	11.09	11.42	11.96	13.83	15.70	17.27
62	8.38	10.15	11.20	11.55	11.89	12.45	14.40	16.34	17.98
63	8.72	10.57	11.66	12.03	12.38	12.97	15.00	17.02	18.72
64	9.09	11.00	12.14	12.52	12.89	13.50	15.62	17.72	19.36
65	9.46	11.46	12.64	13.04	13.42	14.06	16.26	18.45	19.86
66	9.89	11.97	13.21	13.62	14.02	14.69	16.98	19.27	20.63
67	10.33	12.50	13.80	14.23	14.65	15.34	17.74	20.05	21.42
68	10.79	13.06	14.41	14.86	15.30	16.03	18.53	20.79	22.21
69	11.28	13.65	15.06	15.53	15.98	16.74	19.35	21.54	23.01
70	11.79	14.26	15.73	16.22	16.70	17.49	20.22	22.29	23.81
71	12.67	15.41	17.00	17.53	18.05	18.90	21.85	23.31	24.90
72	13.15	16.65	18.37	18.95	19.50	20.43	23.41	24.35	26.02
73	13.63	17.37	19.86	20.48	21.08	22.08	24.43	25.41	27.14
74	14.11	18.10	20.81	22.13	22.78	23.86	25.45	26.47	28.28
75	14.58	18.83	21.65	23.53	24.62	25.42	26.48	27.54	29.42
76	15.05	19.56	22.49	24.44	25.62	26.40	27.50	28.60	30.56
77	15.50	20.28	23.32	25.34	26.56	27.37	28.51	29.65	31.68
78	15.94	20.98	24.13	26.23	27.49	28.33	29.51	30.69	32.79
79	16.36	21.67	24.92	27.09	28.39	29.25	30.47	31.69	33.86
80	16.75	22.33	25.68	27.91	29.25	30.14	31.40	32.66	34.89
81	18.42	24.56	28.25	30.70	32.18	33.16	34.54	35.92	38.38
82	20.10	26.79	30.81	33.49	35.10	36.17	37.68	39.19	41.87
83	22.27	29.70	34.15	37.12	38.90	40.09	41.76	43.43	46.40
84	24.45	32.60	37.49	40.75	42.71	44.01	45.84	47.68	50.94

P-FACE (2002-2) 2016 Rate Increases (%) :

Issue Age	Benefit Period 2	3	4	5	6	7	8	10	Life
18-29	18%	18%	18%	18%	18%	18%	18%	19%	19%
30	18%	18%	18%	18%	18%	18%	18%	19%	19%
31	18%	18%	18%	18%	18%	18%	18%	19%	19%
32	18%	18%	18%	18%	18%	18%	18%	19%	19%
33	18%	18%	18%	18%	18%	18%	18%	19%	19%
34	18%	18%	18%	18%	18%	18%	18%	19%	19%
35	18%	18%	18%	18%	18%	18%	18%	19%	19%
36	18%	18%	18%	18%	18%	18%	18%	19%	19%
37	18%	18%	18%	18%	18%	18%	18%	19%	19%
38	18%	18%	18%	18%	18%	18%	18%	19%	19%
39	18%	18%	18%	18%	18%	18%	18%	19%	19%
40	18%	18%	18%	18%	18%	18%	18%	19%	19%
41	18%	18%	18%	18%	18%	18%	18%	19%	19%
42	18%	18%	18%	18%	18%	18%	18%	19%	19%
43	18%	18%	18%	18%	18%	18%	18%	19%	19%
44	18%	18%	18%	18%	18%	18%	18%	19%	19%
45	18%	18%	18%	18%	18%	18%	18%	19%	19%
46	18%	18%	18%	18%	18%	18%	18%	19%	19%
47	18%	18%	18%	18%	18%	18%	18%	19%	19%
48	18%	18%	18%	18%	18%	18%	18%	19%	19%
49	18%	18%	18%	18%	18%	18%	18%	19%	19%
50	18%	18%	18%	18%	18%	18%	18%	19%	19%
51	18%	18%	18%	18%	18%	18%	18%	19%	19%
52	18%	18%	18%	18%	18%	18%	18%	19%	19%
53	18%	18%	18%	18%	18%	18%	18%	19%	19%
54	18%	18%	18%	18%	18%	18%	18%	19%	19%
55	18%	18%	18%	18%	18%	18%	18%	19%	19%
56	18%	18%	18%	18%	18%	18%	18%	19%	19%
57	18%	18%	18%	18%	18%	18%	18%	19%	19%
58	18%	18%	18%	18%	18%	18%	18%	19%	19%
59	18%	18%	18%	18%	18%	18%	18%	19%	19%
60	18%	18%	18%	17%	17%	17%	18%	18%	19%
61	18%	18%	18%	17%	17%	17%	18%	18%	18%
62	18%	18%	18%	17%	17%	17%	18%	18%	18%
63	18%	18%	17%	17%	17%	17%	18%	18%	18%
64	18%	17%	17%	17%	17%	17%	18%	18%	18%
65	17%	17%	17%	17%	17%	17%	18%	18%	18%
66	17%	17%	17%	17%	17%	17%	17%	18%	18%
67	17%	17%	17%	17%	17%	17%	17%	18%	18%
68	17%	17%	17%	17%	17%	17%	17%	18%	18%
69	17%	17%	17%	17%	17%	17%	17%	17%	17%
70	17%	17%	17%	17%	17%	17%	17%	17%	17%
71	17%	17%	17%	17%	17%	17%	17%	17%	17%
72	17%	17%	17%	17%	17%	17%	17%	17%	17%
73	17%	17%	17%	17%	17%	17%	17%	17%	17%
74	17%	17%	17%	17%	17%	17%	17%	17%	17%
75	17%	17%	17%	17%	17%	17%	17%	17%	17%
76	16%	16%	16%	16%	16%	16%	16%	16%	16%
77	16%	16%	16%	16%	16%	16%	16%	16%	16%
78	16%	16%	16%	16%	16%	16%	16%	16%	16%
79	16%	16%	16%	16%	16%	16%	16%	16%	16%
80	16%	16%	16%	16%	16%	16%	16%	16%	16%
81	16%	16%	16%	16%	16%	16%	16%	16%	16%
82	16%	16%	16%	16%	16%	16%	16%	16%	16%
83	16%	16%	16%	16%	16%	16%	16%	16%	16%
84	16%	16%	16%	16%	16%	16%	16%	16%	16%

<u>* Benefit Differences between P-FACE (2002-2) and P-FACE (2009):</u>

- The P-FACE (2009) ABI option increases the benefits and remaining LMB by 5% per year compounded. The P-FACE (2002-2) ABI option increases the DMB by 5% per year; the new LMB is calculated as the DMB
- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a cor
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifet
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base							ABI Option: (5% Compound Inflation)						
	Benefit Period							Benefit Period						
	2 Years	3 Years	4 Years	5 Years	6 Years	10 Years	Life	2 Years	3 Years	4 Years	5 Years	6 Years	10 Years	Life
18-29	0.44	0.53	0.57	0.59	0.62	0.89	0.96	2.62	2.88	3.07	3.20	3.35	4.38	4.68
30	0.44	0.53	0.57	0.59	0.62	0.89	0.96	2.62	2.88	3.07	3.20	3.35	4.38	4.68
31	0.46	0.55	0.59	0.61	0.64	0.93	0.99	2.70	2.98	3.18	3.32	3.48	4.54	4.85
32	0.48	0.57	0.61	0.64	0.67	0.96	1.03	2.79	3.09	3.30	3.44	3.61	4.71	5.03
33	0.49	0.59	0.63	0.66	0.69	1.00	1.07	2.87	3.19	3.42	3.57	3.74	4.89	5.22
34	0.51	0.61	0.66	0.69	0.72	1.04	1.11	2.96	3.31	3.55	3.71	3.88	5.07	5.42
35	0.53	0.63	0.68	0.71	0.75	1.07	1.15	3.06	3.42	3.68	3.85	4.03	5.26	5.62
36	0.55	0.66	0.71	0.74	0.77	1.11	1.19	3.15	3.54	3.81	3.99	4.18	5.46	5.83
37	0.57	0.68	0.73	0.77	0.80	1.16	1.24	3.25	3.67	3.95	4.14	4.34	5.67	6.05
38	0.59	0.70	0.76	0.79	0.83	1.20	1.28	3.35	3.80	4.10	4.30	4.50	5.88	6.28
39	0.62	0.73	0.79	0.82	0.86	1.24	1.33	3.45	3.93	4.25	4.46	4.67	6.10	6.52
40	0.64	0.75	0.81	0.86	0.90	1.29	1.38	3.56	4.07	4.40	4.63	4.85	6.33	6.76
41	0.68	0.79	0.86	0.91	0.95	1.37	1.46	3.62	4.18	4.53	4.77	5.00	6.52	6.97
42	0.72	0.84	0.91	0.96	1.00	1.45	1.55	3.68	4.28	4.66	4.91	5.15	6.72	7.18
43	0.75	0.88	0.96	1.02	1.06	1.53	1.64	3.74	4.39	4.80	5.06	5.31	6.93	7.40
44	0.78	0.93	1.02	1.07	1.13	1.62	1.74	3.81	4.51	4.93	5.22	5.47	7.14	7.63
45	0.82	0.98	1.07	1.14	1.19	1.72	1.84	3.87	4.62	5.08	5.38	5.64	7.36	7.86
46	0.87	1.04	1.14	1.21	1.27	1.83	1.96	4.03	4.80	5.27	5.59	5.86	7.65	8.17
47	0.93	1.10	1.22	1.29	1.35	1.95	2.08	4.18	4.98	5.48	5.81	6.09	7.95	8.50
48	0.99	1.17	1.29	1.37	1.44	2.07	2.22	4.35	5.16	5.69	6.04	6.33	8.27	8.84
49	1.05	1.25	1.38	1.46	1.53	2.21	2.36	4.52	5.35	5.91	6.28	6.58	8.60	9.19
50	1.12	1.33	1.47	1.56	1.63	2.35	2.52	4.70	5.55	6.14	6.53	6.84	8.94	9.55
51	1.19	1.42	1.57	1.67	1.75	2.52	2.70	4.90	5.81	6.43	6.85	7.18	9.37	10.02
52	1.27	1.51	1.68	1.79	1.87	2.70	2.89	5.11	6.08	6.74	7.18	7.53	9.83	10.50
53	1.35	1.61	1.79	1.91	2.00	2.89	3.09	5.33	6.36	7.06	7.53	7.90	10.31	11.02
54	1.44	1.72	1.92	2.05	2.14	3.09	3.31	5.56	6.65	7.40	7.90	8.28	10.81	11.55
55	1.53	1.84	2.05	2.19	2.30	3.31	3.54	5.80	6.96	7.76	8.29	8.68	11.34	12.12
56	1.67	2.00	2.23	2.39	2.50	3.60	3.85	6.21	7.46	8.33	8.90	9.33	12.18	13.02
57	1.81	2.18	2.43	2.60	2.73	3.91	4.20	6.66	7.99	8.94	9.56	9.93	13.09	13.98
58	1.97	2.37	2.65	2.83	2.97	4.20	4.58	7.13	8.57	9.58	9.97	10.26	14.06	15.02
59	2.14	2.57	2.88	3.07	3.22	4.51	4.99	7.47	9.05	9.99	10.31	10.61	14.59	16.05
60	2.33	2.80	3.13	3.29	3.46	4.85	5.39	7.72	9.36	10.33	10.65	10.96	15.08	16.59
61	2.54	3.08	3.40	3.58	3.76	5.27	5.85	8.04	9.74	10.75	11.09	11.42	15.70	17.27
62	2.77	3.35	3.70	3.89	4.08	5.72	6.36	8.38	10.15	11.20	11.55	11.89	16.34	17.98
63	3.01	3.64	4.02	4.23	4.44	6.22	6.91	8.72	10.57	11.66	12.03	12.38	17.02	18.72
64	3.27	3.96	4.37	4.59	4.82	6.76	7.51	9.09	11.00	12.14	12.52	12.89	17.72	19.36
65	3.55	4.30	4.75	4.99	5.24	7.34	8.16	9.46	11.46	12.64	13.04	13.42	18.45	19.86
66	3.87	4.68	5.17	5.44	5.71	8.00	8.89	9.89	11.97	13.21	13.62	14.02	19.27	20.63
67	4.22	5.10	5.63	5.93	6.22	8.71	9.68	10.33	12.50	13.80	14.23	14.65	20.05	21.42
68	4.59	5.56	6.14	6.46	6.78	9.49	10.55	10.79	13.06	14.41	14.86	15.30	20.79	22.21
69	5.01	6.06	6.69	7.03	7.38	10.34	11.49	11.28	13.65	15.06	15.53	15.98	21.54	23.01
70	5.46	6.60	7.29	7.66	8.05	11.26	12.51	11.79	14.26	15.73	16.22	16.70	22.29	23.81
71	6.13	7.42	8.18	8.61	9.04	12.65	14.06	12.67	15.41	17.00	17.53	18.05	23.31	24.90
72	6.89	8.33	9.19	9.67	10.15	14.03	14.99	13.15	16.65	18.37	18.95	19.50	24.35	26.02
73	7.61	9.36	10.32	10.86	11.40	14.91	15.93	13.63	17.37	19.86	20.48	21.08	25.41	27.14
74	8.34	10.51	11.60	12.19	12.80	15.82	16.90	14.11	18.10	20.81	22.13	22.78	26.47	28.28
75	8.88	11.46	13.02	13.70	14.38	16.76	17.90	14.58	18.83	21.65	23.53	24.62	27.54	29.42
76	9.33	12.12	13.94	15.15	15.88	17.73	18.94	15.05	19.56	22.49	24.44	25.62	28.60	30.56
77	9.79	12.80	14.72	16.00	16.76	18.72	20.00	15.50	20.28	23.32	25.34	26.56	29.65	31.68
78	10.25	13.49	15.51	16.86	17.67	19.73	21.07	15.94	20.98	24.13	26.23	27.49	30.69	32.79
79	10.71	14.19	16.31	17.73	18.58	20.75	22.16	16.36	21.67	24.92	27.09	28.39	31.69	33.86
80	11.16	14.89	17.12	18.61	19.50	21.77	23.26	16.75	22.33	25.68	27.91	29.25	32.66	34.89
81	12.28	16.37	18.83	20.47	21.45	23.95	25.58	18.42	24.56	28.25	30.70	32.18	35.92	38.38
82	13.40	17.86	20.54	22.33	23.40	26.12	27.91	20.10	26.79	30.81	33.49	35.10	39.19	41.87
83	14.85	19.80	22.77	24.75	25.94	28.95	30.93	22.27	29.70	34.15	37.12	38.90	43.43	46.40
84	16.30	21.73	24.99	27.17	28.47	31.78	33.96	24.45	32.60	37.49	40.75	42.71	47.68	50.94
85+	19.76	26.35	30.30	32.93	34.52	38.53	41.17	29.64	39.52	45.45	49.40	51.77	57.80	61.75

Appendix B2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (3.3% Compound Inflation)				
	Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	1.52	1.67	1.79	1.86	1.95
30	1.52	1.67	1.79	1.86	1.95
31	1.57	1.73	1.85	1.93	2.02
32	1.62	1.79	1.92	2.00	2.10
33	1.67	1.86	1.99	2.08	2.18
34	1.72	1.92	2.06	2.16	2.26
35	1.78	1.99	2.14	2.24	2.34
36	1.83	2.06	2.22	2.32	2.43
37	1.89	2.13	2.30	2.41	2.52
38	1.95	2.21	2.38	2.50	2.62
39	2.01	2.29	2.47	2.59	2.72
40	2.07	2.37	2.56	2.69	2.82
41	2.11	2.43	2.63	2.77	2.90
42	2.14	2.49	2.71	2.86	2.99
43	2.18	2.55	2.79	2.94	3.08
44	2.21	2.62	2.87	3.03	3.18
45	2.25	2.69	2.95	3.13	3.28
46	2.34	2.79	3.07	3.25	3.41
47	2.43	2.89	3.18	3.38	3.54
48	2.53	3.00	3.31	3.51	3.68
49	2.63	3.11	3.44	3.65	3.83
50	2.73	3.23	3.57	3.80	3.98
51	2.85	3.38	3.74	3.98	4.17
52	2.97	3.53	3.92	4.18	4.38
53	3.10	3.70	4.11	4.38	4.59
54	3.23	3.87	4.30	4.59	4.81
55	3.37	4.05	4.51	4.82	5.05
56	3.61	4.34	4.84	5.18	5.42
57	3.87	4.65	5.20	5.56	5.82
58	4.14	4.98	5.57	5.96	6.24
59	4.43	5.33	5.97	6.39	6.69
60	4.74	5.70	6.40	6.86	7.18
61	4.98	6.01	6.75	7.24	7.58
62	5.23	6.33	7.13	7.65	8.01
63	5.49	6.67	7.52	8.08	8.46
64	5.77	7.03	7.94	8.53	8.94
65	6.06	7.41	8.38	9.01	9.44
66	6.42	7.89	8.95	9.64	10.10
67	6.81	8.40	9.55	10.31	10.80
68	7.22	8.94	10.20	11.03	11.56
69	7.66	9.52	10.90	11.81	12.37
70	8.12	10.14	11.64	12.63	13.23
71	8.74	10.98	12.61	13.68	14.33
72	9.39	11.89	13.66	14.82	15.52
73	10.10	12.87	14.79	16.05	16.82
74	10.85	13.92	16.01	17.39	18.21
75	11.67	15.06	17.32	18.83	19.73
76	12.54	16.30	18.74	20.37	21.35
77	13.48	17.63	20.28	22.04	23.10
78	14.49	19.08	21.94	23.84	24.99
79	15.58	20.64	23.73	25.80	27.04
80	16.75	22.33	25.68	27.91	29.25
81	18.42	24.56	28.25	30.70	32.18
82	20.10	26.79	30.81	33.49	35.10
83	22.27	29.70	34.15	37.12	38.90
84	24.45	32.60	37.49	40.75	42.71
85+	29.64	39.52	45.45	49.40	51.77

Appendix B2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (2.3% Compound Inflation)	
	Benefit Period	
	10 Years	Life
18-29	2.19	2.34
30	2.19	2.34
31	2.27	2.43
32	2.36	2.52
33	2.44	2.61
34	2.54	2.71
35	2.63	2.81
36	2.73	2.92
37	2.83	3.03
38	2.94	3.14
39	3.05	3.26
40	3.16	3.38
41	3.26	3.48
42	3.36	3.59
43	3.46	3.70
44	3.57	3.81
45	3.68	3.93
46	3.83	4.09
47	3.98	4.25
48	4.14	4.42
49	4.30	4.59
50	4.47	4.77
51	4.69	5.01
52	4.92	5.25
53	5.16	5.51
54	5.41	5.78
55	5.67	6.06
56	6.09	6.51
57	6.54	6.99
58	7.03	7.51
59	7.54	8.07
60	8.09	8.65
61	8.54	9.13
62	9.02	9.65
63	9.52	10.19
64	10.06	10.75
65	10.62	11.35
66	11.36	12.14
67	12.15	12.98
68	12.99	13.88
69	13.89	14.84
70	14.86	15.88
71	16.08	17.18
72	17.39	18.58
73	18.82	20.11
74	20.36	21.75
75	22.03	23.53
76	23.83	25.46
77	25.79	27.55
78	27.90	29.81
79	30.18	32.25
80	32.66	34.89
81	35.92	38.38
82	39.19	41.87
83	43.43	46.40
84	47.68	50.94
85+	57.80	61.75

Appendix C1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base with Shared Cost					ABI Option: (4.4% Compound Inflation) or (5.0% Compound Inflation) with Shared Cost				
	Benefit Period					Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	0.38	0.46	0.49	0.51	0.53	2.22	2.44	2.60	2.71	2.84
30	0.38	0.46	0.49	0.51	0.53	2.22	2.44	2.60	2.71	2.84
31	0.40	0.47	0.50	0.53	0.55	2.29	2.52	2.70	2.81	2.95
32	0.41	0.49	0.52	0.55	0.57	2.36	2.61	2.80	2.92	3.06
33	0.43	0.51	0.54	0.57	0.59	2.43	2.71	2.90	3.03	3.17
34	0.44	0.52	0.56	0.59	0.62	2.51	2.80	3.00	3.14	3.29
35	0.46	0.54	0.58	0.61	0.64	2.59	2.90	3.11	3.26	3.41
36	0.47	0.56	0.60	0.63	0.66	2.67	3.00	3.23	3.38	3.54
37	0.49	0.58	0.63	0.66	0.69	2.75	3.11	3.35	3.51	3.68
38	0.51	0.60	0.65	0.68	0.71	2.84	3.22	3.47	3.64	3.81
39	0.53	0.62	0.67	0.71	0.74	2.93	3.33	3.60	3.78	3.96
40	0.55	0.64	0.70	0.73	0.77	3.02	3.45	3.73	3.92	4.11
41	0.58	0.68	0.74	0.78	0.81	3.07	3.54	3.84	4.04	4.23
42	0.61	0.72	0.78	0.82	0.86	3.12	3.63	3.95	4.16	4.36
43	0.64	0.75	0.82	0.87	0.91	3.17	3.72	4.06	4.29	4.49
44	0.67	0.79	0.87	0.92	0.96	3.23	3.82	4.18	4.42	4.63
45	0.70	0.84	0.92	0.97	1.02	3.28	3.92	4.30	4.56	4.77
46	0.75	0.89	0.98	1.04	1.09	3.41	4.06	4.47	4.74	4.96
47	0.79	0.95	1.04	1.10	1.16	3.54	4.21	4.64	4.92	5.16
48	0.85	1.00	1.11	1.18	1.23	3.69	4.37	4.82	5.12	5.36
49	0.90	1.07	1.18	1.25	1.31	3.83	4.53	5.01	5.32	5.58
50	0.96	1.13	1.25	1.33	1.40	3.98	4.70	5.20	5.53	5.80
51	1.02	1.21	1.34	1.43	1.50	4.15	4.92	5.45	5.80	6.08
52	1.09	1.29	1.43	1.53	1.60	4.33	5.15	5.71	6.08	6.38
53	1.16	1.38	1.53	1.64	1.71	4.52	5.39	5.98	6.38	6.69
54	1.23	1.47	1.64	1.75	1.84	4.71	5.64	6.27	6.69	7.01
55	1.31	1.57	1.75	1.87	1.96	4.91	5.90	6.57	7.02	7.36
56	1.43	1.71	1.91	2.04	2.14	5.26	6.32	7.05	7.54	7.90
57	1.55	1.86	2.08	2.23	2.33	5.64	6.77	7.57	8.10	8.42
58	1.69	2.03	2.27	2.43	2.55	6.04	7.26	8.12	8.47	8.72
59	1.83	2.20	2.47	2.63	2.76	6.34	7.68	8.48	8.76	9.03
60	1.99	2.40	2.68	2.82	2.97	6.56	7.95	8.78	9.07	9.34
61	2.18	2.64	2.92	3.07	3.22	6.84	8.28	9.15	9.45	9.73
62	2.37	2.87	3.17	3.34	3.51	7.12	8.63	9.53	9.84	10.14
63	2.58	3.12	3.45	3.63	3.81	7.42	8.99	9.93	10.26	10.56
64	2.80	3.39	3.75	3.95	4.14	7.73	9.36	10.34	10.69	11.01
65	3.05	3.69	4.08	4.29	4.51	8.05	9.76	10.78	11.13	11.47
66	3.32	4.02	4.44	4.68	4.91	8.42	10.20	11.27	11.64	11.99
67	3.62	4.38	4.84	5.10	5.35	8.80	10.66	11.78	12.17	12.53
68	3.94	4.78	5.28	5.56	5.83	9.20	11.15	12.31	12.72	13.10
69	4.30	5.21	5.75	6.05	6.36	9.62	11.65	12.87	13.30	13.70
70	4.69	5.68	6.27	6.60	6.93	10.06	12.18	13.46	13.90	14.32
71	5.26	6.37	7.04	7.41	7.78	10.81	13.17	14.55	15.03	15.48
72	5.90	7.15	7.90	8.32	8.73	11.24	14.23	15.72	16.24	16.73
73	6.52	8.03	8.87	9.34	9.80	11.66	14.87	16.99	17.55	18.08
74	7.15	9.01	9.96	10.48	11.01	12.09	15.51	17.83	18.97	19.54
75	7.61	9.83	11.18	11.77	12.35	12.51	16.15	18.58	20.19	21.12
76	8.01	10.41	11.97	13.01	13.64	12.93	16.80	19.32	21.00	22.01
77	8.42	11.01	12.66	13.76	14.42	13.33	17.44	20.05	21.80	22.84
78	8.82	11.62	13.36	14.52	15.22	13.73	18.07	20.78	22.59	23.67
79	9.23	12.23	14.07	15.29	16.02	14.10	18.69	21.49	23.36	24.48
80	9.64	12.85	14.78	16.06	16.84	14.46	19.28	22.17	24.10	25.25
81	10.60	14.14	16.26	17.67	18.52	15.90	21.21	24.39	26.51	27.78
82	11.57	15.42	17.74	19.28	20.20	17.35	23.13	26.60	28.92	30.30
83	12.82	17.09	19.66	21.37	22.39	19.23	25.64	29.48	32.05	33.59
84	14.07	18.76	21.58	23.45	24.58	21.11	28.15	32.37	35.18	36.87
85+	17.06	22.75	26.16	28.43	29.80	25.59	34.12	39.24	42.65	44.70

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C1

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have not previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	FPO Base with Shared Cost		ABI Option: (4.4% Compound Inflation) or (5.0% Compound Inflation) with Shared Cost	
	Benefit Period		Benefit Period	
	10 Years	Life	10 Years	Life
18-29	0.76	0.81	3.69	3.94
30	0.76	0.81	3.69	3.94
31	0.79	0.84	3.82	4.09
32	0.82	0.87	3.97	4.24
33	0.85	0.90	4.12	4.40
34	0.88	0.94	4.27	4.56
35	0.91	0.97	4.43	4.74
36	0.95	1.01	4.60	4.91
37	0.98	1.05	4.77	5.10
38	1.02	1.09	4.95	5.29
39	1.06	1.13	5.14	5.49
40	1.10	1.17	5.33	5.69
41	1.16	1.24	5.49	5.87
42	1.23	1.31	5.66	6.05
43	1.30	1.39	5.83	6.23
44	1.38	1.47	6.01	6.42
45	1.46	1.56	6.20	6.62
46	1.55	1.66	6.44	6.88
47	1.65	1.77	6.70	7.16
48	1.76	1.88	6.96	7.44
49	1.87	2.00	7.24	7.73
50	2.00	2.13	7.53	8.04
51	2.14	2.28	7.89	8.43
52	2.29	2.44	8.28	8.84
53	2.45	2.62	8.68	9.28
54	2.62	2.80	9.11	9.73
55	2.81	3.00	9.55	10.20
56	3.06	3.27	10.26	10.96
57	3.32	3.56	11.02	11.77
58	3.57	3.88	11.84	12.65
59	3.84	4.23	12.31	13.52
60	4.12	4.58	12.74	13.99
61	4.48	4.98	13.27	14.58
62	4.88	5.41	13.83	15.19
63	5.30	5.88	14.40	15.82
64	5.76	6.39	15.01	16.38
65	6.27	6.95	15.63	16.83
66	6.83	7.58	16.35	17.50
67	7.44	8.26	17.03	18.19
68	8.11	9.00	17.68	18.89
69	8.84	9.81	18.34	19.59
70	9.63	10.69	19.00	20.30
71	10.82	12.00	19.90	21.26
72	11.99	12.81	20.81	22.24
73	12.76	13.63	21.74	23.23
74	13.55	14.48	22.68	24.23
75	14.38	15.36	23.62	25.24
76	15.23	16.27	24.57	26.25
77	16.10	17.20	25.50	27.25
78	16.99	18.15	26.43	28.23
79	17.89	19.11	27.33	29.20
80	18.80	20.08	28.19	30.12
81	20.68	22.09	31.01	33.13
82	22.55	24.10	33.83	36.15
83	25.00	26.71	37.50	40.06
84	27.44	29.32	41.16	43.98
85+	33.27	35.54	49.90	53.31

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (2.5% Compound Inflation) or (3.3% Compound Inflation) with Shared Cost				
	Benefit Period				
	2 Years	3 Years	4 Years	5 Years	6 Years
18-29	1.29	1.42	1.51	1.58	1.65
30	1.29	1.42	1.51	1.58	1.65
31	1.33	1.47	1.57	1.63	1.71
32	1.37	1.52	1.63	1.70	1.78
33	1.42	1.57	1.68	1.76	1.84
34	1.46	1.63	1.75	1.83	1.91
35	1.51	1.69	1.81	1.89	1.98
36	1.55	1.74	1.88	1.97	2.06
37	1.60	1.81	1.95	2.04	2.14
38	1.65	1.87	2.02	2.12	2.22
39	1.70	1.94	2.09	2.20	2.30
40	1.75	2.00	2.17	2.28	2.39
41	1.78	2.06	2.23	2.35	2.46
42	1.81	2.11	2.30	2.42	2.54
43	1.84	2.16	2.36	2.49	2.61
44	1.88	2.22	2.43	2.57	2.69
45	1.91	2.28	2.50	2.65	2.78
46	1.98	2.36	2.60	2.75	2.89
47	2.06	2.45	2.70	2.86	3.00
48	2.14	2.54	2.80	2.98	3.12
49	2.23	2.64	2.91	3.09	3.24
50	2.32	2.73	3.02	3.22	3.37
51	2.42	2.86	3.17	3.37	3.54
52	2.52	2.99	3.32	3.54	3.71
53	2.63	3.13	3.48	3.71	3.89
54	2.74	3.28	3.65	3.89	4.08
55	2.86	3.43	3.82	4.08	4.28
56	3.06	3.67	4.10	4.38	4.59
57	3.28	3.94	4.40	4.71	4.94
58	3.51	4.22	4.72	5.06	5.30
59	3.76	4.52	5.07	5.43	5.70
60	4.03	4.85	5.44	5.84	6.12
61	4.23	5.11	5.74	6.17	6.47
62	4.45	5.38	6.07	6.52	6.83
63	4.67	5.68	6.40	6.89	7.22
64	4.91	5.98	6.76	7.28	7.63
65	5.15	6.31	7.14	7.69	8.06
66	5.47	6.72	7.63	8.24	8.63
67	5.80	7.16	8.16	8.82	9.24
68	6.16	7.63	8.72	9.44	9.90
69	6.53	8.13	9.32	10.11	10.60
70	6.93	8.66	9.96	10.83	11.35
71	7.46	9.38	10.79	11.73	12.29
72	8.03	10.16	11.69	12.71	13.32
73	8.64	11.01	12.66	13.76	14.42
74	9.30	11.93	13.72	14.91	15.63
75	10.01	12.92	14.86	16.15	16.93
76	10.77	14.00	16.10	17.50	18.34
77	11.60	15.16	17.44	18.96	19.87
78	12.48	16.43	18.89	20.53	21.52
79	13.43	17.80	20.46	22.24	23.31
80	14.46	19.28	22.17	24.10	25.25
81	15.90	21.21	24.39	26.51	27.78
82	17.35	23.13	26.60	28.92	30.30
83	19.23	25.64	29.48	32.05	33.59
84	21.11	28.15	32.37	35.18	36.87
85+	25.59	34.12	39.24	42.65	44.70

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix C2

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Premiums to be used only with those

that have previously elected an inflation decrease option

Rates per $5 of Monthly Benefit - 90 Day Elimination Period

Home Health Monthly Benefit at 75% of Nursing Home Monthly Benefit

Age	ABI Option: (1.5% Compound Inflation) or (2.3% Compound Inflation) with Shared Cost	
	Benefit Period	
	10 Years	Life
18-29	1.84	1.97
30	1.84	1.97
31	1.91	2.04
32	1.98	2.12
33	2.06	2.20
34	2.14	2.28
35	2.22	2.37
36	2.30	2.46
37	2.39	2.55
38	2.48	2.64
39	2.57	2.74
40	2.66	2.85
41	2.75	2.93
42	2.83	3.02
43	2.92	3.12
44	3.01	3.21
45	3.10	3.31
46	3.22	3.44
47	3.35	3.58
48	3.48	3.72
49	3.62	3.87
50	3.76	4.02
51	3.95	4.22
52	4.14	4.42
53	4.34	4.64
54	4.55	4.86
55	4.77	5.10
56	5.13	5.48
57	5.51	5.89
58	5.92	6.32
59	6.36	6.79
60	6.83	7.30
61	7.22	7.71
62	7.63	8.15
63	8.06	8.61
64	8.52	9.10
65	9.00	9.62
66	9.64	10.30
67	10.32	11.02
68	11.05	11.80
69	11.83	12.64
70	12.67	13.53
71	13.72	14.66
72	14.87	15.88
73	16.10	17.21
74	17.45	18.64
75	18.90	20.19
76	20.47	21.87
77	22.18	23.69
78	24.02	25.67
79	26.03	27.81
80	28.19	30.12
81	31.01	33.13
82	33.83	36.15
83	37.50	40.06
84	41.16	43.98
85+	49.90	53.31

See Appendix D for details on premium calculations for policyholders who elected the Shared Cost options

Appendix D

Care Choice (P-FACE(2002-2))

Shared Cost Percentages

Age	FPO									ABI							
	Benefit Period									Benefit Period							
	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	10 Years	Life	2 Years	3 Years	4 Years	5 Years	6 Years	7 Years	8 Years	10 Years
18-29	8.7%	10.1%	7.1%	8.9%	9.7%			11.5%	8.1%	9.6%	5.9%	5.9%	5.1%	5.9%			6.4%
30	9.0%	11.4%	9.6%	10.0%	11.0%		9.3%	12.1%	9.4%		6.6%		6.3%	6.1%			7.5%
31	10.2%	10.6%	6.5%	10.3%	11.0%			12.1%	8.7%	11.1%	7.9%		6.8%	5.5%			7.7%
32	10.2%	11.5%	8.7%	10.9%	11.6%			12.1%	10.9%	9.4%	7.3%	7.8%	7.3%	6.8%			11.9%
33	11.3%	11.4%	11.5%	11.2%	11.6%			12.1%	12.2%	7.4%	8.4%	9.8%	7.5%	8.8%			10.2%
34	11.3%	11.5%	11.5%	11.6%	11.6%	11.6%		12.1%	12.1%		11.2%	12.1%	8.5%	9.2%			10.4%
35	11.3%	11.5%	11.5%	11.6%	11.6%			12.1%	12.2%	10.1%	11.9%	10.3%	9.4%	10.4%			12.2%
36	11.1%	11.5%	11.5%	11.5%	11.6%			12.0%	12.2%	8.0%	10.1%	10.8%	10.3%	10.8%			11.7%
37	11.3%	11.5%	11.5%	11.6%	11.6%			12.1%	12.2%	12.2%	12.1%	12.2%	11.7%	12.2%	12.2%		12.6%
38	11.3%	11.5%	11.5%	11.6%	11.6%		11.7%	12.1%	12.2%	12.2%	12.2%	12.2%	12.2%	12.2%	12.2%		12.6%
39	11.4%	11.3%	11.5%	11.5%	11.6%	11.6%		12.1%	12.2%	12.2%	12.2%	12.2%	12.2%	12.2%			12.6%
40	7.3%	7.7%	7.2%	7.7%	7.6%		5.8%	9.2%	7.5%	7.1%	8.2%	7.2%	6.7%	6.7%			7.6%
41	7.2%	7.9%	8.9%	8.1%	8.5%		7.0%	10.1%	8.1%	12.2%	6.9%	7.6%	6.8%	7.1%			8.5%
42	7.8%	8.7%	7.6%	8.7%	9.1%		5.7%	10.3%	9.0%	10.1%	7.7%	8.2%	7.2%	7.7%			8.6%
43	9.1%	8.5%	9.2%	9.1%	9.9%			11.8%	9.2%	8.5%	7.5%	8.5%	7.7%	8.1%			8.8%
44	9.2%	9.6%	8.9%	9.9%	10.4%		6.6%	12.1%	10.0%	12.2%	8.9%	8.8%	8.3%	9.5%			10.1%
45	9.6%	10.8%	11.1%	10.7%	11.3%	11.6%	10.1%	12.1%	11.3%	12.2%	8.7%	10.3%	9.0%	10.2%			11.8%
46	10.5%	11.5%	11.6%	11.5%	11.6%		9.0%	12.1%	12.2%	11.2%	9.9%	10.1%	10.3%	10.8%			12.6%
47	11.4%	11.6%	11.6%	11.5%	11.6%		9.6%	12.1%	12.2%	12.2%	11.8%	11.7%	11.2%	11.8%			12.6%
48	11.5%	11.5%	11.6%	11.5%	11.6%		11.7%	12.1%	12.2%	12.2%	12.2%	9.3%	12.2%	12.2%			12.6%
49	11.5%	11.6%	11.6%	11.5%	11.6%		9.9%	12.1%	12.2%	12.0%	12.2%	12.2%	12.2%	12.2%			12.6%
50	7.8%	8.0%	7.8%	8.5%	8.8%	11.6%	8.0%	10.4%	8.8%	10.8%	7.5%	8.4%	7.6%	7.6%			8.6%
51	8.0%	8.4%	8.4%	8.9%	9.1%	9.8%	6.3%	11.0%	9.2%	8.2%	7.4%	9.6%	8.0%	8.0%			10.4%
52	8.8%	9.3%	8.9%	9.6%	10.3%	11.6%	7.1%	12.1%	10.3%	8.7%	8.5%	9.7%	8.7%	8.5%	8.4%		11.2%
53	9.8%	10.1%	9.3%	10.2%	10.9%	10.3%	8.7%	12.1%	10.8%	8.8%	9.2%	8.8%	9.4%	9.7%			11.8%
54	10.6%	11.2%	10.5%	11.1%	11.5%	11.6%	7.9%	12.1%	11.4%	8.7%	10.0%	12.2%	10.5%	10.4%			12.6%
55	7.1%	7.0%	7.0%	7.7%	7.9%	10.7%	5.4%	9.8%	7.5%	8.2%	7.1%	10.5%	7.2%	7.0%			9.3%
56	7.3%	7.4%	7.5%	8.1%	8.3%	10.6%	5.9%	10.4%	8.0%	7.2%	7.4%	8.5%	7.8%	7.7%			8.7%
57	8.4%	8.5%	8.7%	8.8%	9.1%		6.5%	11.8%	8.5%	7.1%	8.5%	8.0%	8.7%	8.2%			10.4%
58	9.2%	9.5%	9.7%	9.5%	10.1%		6.6%	12.0%	9.4%	8.4%	9.9%	9.7%	9.7%	8.7%			12.5%
59	10.1%	10.5%	10.3%	10.1%	11.0%	8.3%	7.6%	11.9%	10.3%	9.5%	10.6%	12.1%	10.3%	10.1%			11.6%
60	6.6%	6.2%	6.4%	6.9%	6.7%		5.4%	8.2%	6.0%	8.0%	6.6%	6.4%	6.6%	6.6%			8.6%
61	7.0%	6.7%	6.6%	7.2%	6.7%		5.3%	9.3%	6.3%	5.7%	7.1%	7.1%	7.0%	6.4%			8.7%
62	7.6%	7.4%	8.1%	7.6%	7.3%		5.6%	9.8%	6.8%	7.1%	7.9%	7.7%	7.3%	6.8%			10.1%
63	8.5%	8.0%	7.9%	7.9%	8.1%		6.9%	11.2%	7.2%	8.1%	7.7%	11.8%	8.3%	7.8%			12.2%
64	9.8%	8.4%	8.5%	8.3%	9.3%		7.5%	11.3%	7.4%	6.4%	8.3%		8.8%	8.0%			12.2%
65	6.4%	5.5%	5.7%	6.0%	5.8%		4.7%	7.4%	4.4%	4.8%	5.2%		5.7%	6.3%			8.3%
66	6.0%	6.1%	5.7%	5.9%	5.8%		6.0%	7.3%	4.7%	6.2%	5.8%	6.2%	5.5%	4.6%			10.5%
67	6.5%	6.5%	6.1%	6.1%	6.1%		7.5%	9.0%	5.6%		6.2%		6.1%	6.5%			7.9%
68	6.8%	6.5%	6.8%	6.1%	6.7%		7.8%	10.3%	5.8%	9.4%	7.8%		6.7%	6.4%			6.6%
69	7.0%	7.1%	5.4%	6.1%	7.6%		9.3%	11.6%	6.3%		6.6%	8.7%	7.1%	6.5%			
70	4.9%	4.1%	4.2%	4.4%	4.4%			5.5%	3.7%	5.3%	4.0%		4.4%	5.1%			
71	4.7%	4.2%	4.0%	4.5%	5.1%		7.2%	6.0%	3.9%		6.1%		5.2%	3.9%			
72	6.0%	4.5%	6.0%	4.8%	5.0%		5.1%	11.4%	4.4%		2.6%		4.5%	4.9%			
73	5.0%	4.9%	6.9%	4.5%	5.9%		7.0%		5.3%				5.5%	5.8%			
74	5.7%	6.7%	5.8%	4.3%	7.0%		7.4%		4.2%				5.6%	10.6%			
75	3.8%	4.2%	4.5%	3.6%	4.0%		5.2%		2.4%				3.9%	3.3%			
76	3.4%	3.4%	3.4%	3.4%	4.3%		4.0%		2.7%				4.4%				
77	3.2%	3.4%	3.2%	3.6%	4.0%				2.3%		4.2%		3.9%				
78	2.4%	3.7%	3.5%	3.3%	5.5%		5.0%		2.9%								
79	1.8%	4.0%	2.1%	2.8%	4.6%			3.7%	3.6%				1.8%				
80	1.5%	2.2%		2.3%					2.0%								
81	0.5%	2.4%		2.2%					3.2%					2.1%			
82	2.4%	2.4%		2.5%	6.4%				2.2%								
83		3.0%		2.0%													
84		3.0%		1.9%													
85	1.5%			2.1%													
86		3.6%		2.3%	4.2%												
87	2.1%	2.9%		1.4%													
88				1.6%													
89																	
90																	
91	4.0%																
92																	
93																	
94																	
95																	

* Certain cells are blank because there are no nationwide polcies with that benefit period, issue age and inflation combination

For FPO policies with multiple layers of coverage, the Shared Cost percentage will be based on the issue age of the base contract. Each FPO layer will be reduced by the Shared Cost percentage

Appendix D

Care Choice (P-FACE(2002-2))
Shared Cost Percentages

Note on premium calculation for a policyholder who elects the Shared Cost option:

To calculate the premium after election of the Shared Cost option, the premium rate schedules in Appendices C1 to C4 should be used. Since the Shared Cost option reduces the daily benefit, an additional factor is required to calculate the premium appropriately, as shown below:

Premium after electing Shared Cost option =

$$\frac{(\text{Premium Rate Schedule per \$10 daily benefit: Appendices C1-C4}) * (\text{New Daily Benefit}/10)}{(1 - \text{Shared Cost Percentage})}$$

A similar formula can be used for FPO policies with multiple layers of coverage:

Premium after electing Shared Cost option =

$$\frac{[\ (\text{Premium Rate Schedule, Base Issue Age per \$10 Daily Benefit: Appendices C1-C4}) * (\text{New Base Daily Benefit}/10) + (\text{Premium Rate Schedule, GPO Layer 1 Issue Age per \$10 Daily Benefit: Appendices C1-C4}) * (\text{New Layer 1 Daily Benefit}/10) + \ldots\ ]}{(1 - \text{Shared Cost Percentage})}$$

Appendix 1
John Hancock Life Company (U.S.A.)
Company NAIC # 65838; FEIN #: 01-0233346
Group Long-Term Care Insurance Rate Revision Submission

John Hancock is requesting premium rate increases for the policy forms listed in the cover letter. These rate increases are in response to the following:

- Our most recent comprehensive experience studies show unfavorable trends since the prior study that prompted our last rate increase filing. The largest impact with respect to updating assumptions is attributable to a decrease to mortality rates. Updates to morbidity assumptions also had a large impact on the P-FACE(2004) plan.
- We have applied a more refined modeling approach that is causing movements in our loss ratio.
- We have corrected certain projections and assumptions in our prior filing in 2010 that had understated the loss ratio, which meant the rate increases we requested in our prior filing were too low (model and assumption corrections). We have enhanced our model vetting process, in which an independent team reviews all of the assumptions and calculations in our model to ensure that all model inputs match our documented assumptions.

With respect to actual experience, results of experience studies and modeling refinements, we are calculating the rate increase assuming an implementation date of 1/1/2015, which lowers the increases needed to bring John Hancock back to its target loss ratio. Extensive analysis was needed in order to understand loss ratio movements and confirm a rate increase was needed. Therefore, we assumed a 1/1/2015 implementation date rather than passing on the costs to insureds. This lowers the rate increase that would be borne by customers by $54M on a nationwide basis.

With respect to the changes resulting from the model and assumption corrections, we are calculating the rate increase on a basis assuming they were implemented at the time of the 2010 rate increase instead of reflecting a current implementation date. This lowers the rate increases needed to bring John Hancock back to its target loss ratio. John Hancock is absorbing the impact of applying this implementation date, rather than passing on the costs to insureds. This lowers the rate increase that would be borne by customers by $116M on a nationwide basis.

Comprehensive Experience Studies
Mortality, lapse and morbidity experience studies were completed since our last filing. Across all of our plans, updates to mortality assumptions increased our loss ratio, lapse assumption updates decreased our loss ratio, and for morbidity, the impact differed by plan.

- Our mortality experience study saw lower mortality rates, causing the loss ratio to increase for all plans. Due to the durations at which the updates to mortality rates were made, there was a larger loss ratio impact to more recently issued plans (P-FACE(2004)) and a smaller impact to older plans (GPB-COV-0002).
- Lapse rates were increased slightly for all plans (in the range of .1% to .2%), leading to a slightly lower loss ratio.
- Morbidity updates caused an increase to the loss ratio for the P-FACE(2004) plan, a very minimal impact for the P-FACE(2002-2) plan, and a reduction to the loss ratio for the GPB-COV-0002 Plan.

Refinements
During our 2010 filing there were a few reasonable simplifying assumptions utilized. Moving to a more refined approach caused movements in our loss ratio. By reflecting the refinements in our calculation of our rate increase, we more accurately reflect the experience we expect to see in the future instead of waiting for the experience to unfold over time, which would result in larger rate increases in the future. Some of the assumptions that are now modeled in an enhanced way are described in detail below:

- Our prior filing used gender blended mortality tables while our current filing uses gender distinct tables.
- Our prior filing used pivotal issue ages (mostly quinquennial) when modeling mortality rates while our current filing uses actual issue ages.
- Our prior filing applied lapses at policy year-ends while our current filing applies lapses quarterly.

Since our prior filing we have converted our valuation system from a claim cost projection model to First Principles methodology, consistent with the industry best practices.

For plans that upgraded to our P-FACE(2002-2) plan or transferred from another carrier to our P-FACE(2002-2) plan, past premiums (and asset transfers for plans transferring from another carrier) were ignored and future premiums were based on the attained age premium without any premium discount in our 2010 projection model. We are now reflecting past premiums paid (and asset transfers for transfers) and projecting future premiums based on the attained age premium after the discount. The PV of premiums over the life of the policy is the same between the two methods at a 6% discount rate (the pricing rate for the plan), but are different when discounting at the valuation interest rate as is done for rate increases. The prior methodology understated the loss ratio which understated the 2010 rate increase.

Model Refinements Account for the following impact to our overall rate increase:

Plan	Rate Increase Due to Model Refinement
GPB-COV-0002	2.6%
P-FACE(2002-2)	9.8%
P-FACE(2004)	15.8%

Model and Assumption Corrections

John Hancock is also requesting a rate increase because of model and assumption corrections needed in the projections used in our prior filing. The projections in our prior filing understated the loss ratio which meant the rate increases we requested in our prior filing were too low. We have enhanced our model vetting process, in which an independent team reviews all of the assumptions and calculations in our model to ensure that all model inputs match our documented assumptions.

Model and Assumption Corrections Account for the following impact to our overall rate increase:

Plan	Rate Increase Due to Model and Assumption Corrections
GPB-COV-0002	4.4%
P-FACE(2002-2)	8.4%
P-FACE(2004)	10.4%

Below is the complete list of model and assumption corrections needed in the projections used in our prior filings. In some cases, the correction would have resulted in an overstatement or understatement of the rate increase, but in total, the net impact was an understatement of the rate increase:

<u>Impacting all plans - GPB-COV-0002, P-FACE(2002-2), and P-FACE(2004)</u>

For our Guaranteed Issue business, we were using lapse rates for fully underwritten business for durations 2+. This caused lapse rates to be understated.

Historical mortality improvements from 1994 (the date of the base mortality table) to the projection date (12/31/09) was modeled using 10 years instead of 16 years. This caused mortality rates to be overstated.

The mortality improvement referred to the policy year instead of the projection year, which caused mortality rates to be overstated.

The mortality selection factors for policies issued in 2004 or later were not updated in our 2010 projection models (the 2010 models used an ultimate mortality selection factor of 100% instead of 93%). This caused mortality to be overstated.

There was an over-counting of deaths in the 2010 mortality experience study. This caused mortality rates to be overstated.

Impacting all Plans Except for P-FACE(2004)
The models we used in projecting benefits for our 2010 rate increase for two of the plans contained some claim cost multipliers that were inconsistent with our valuation models. This inconsistency understated our loss ratios.

Impacting P-FACE(2002-2) only
For plans that upgraded to our 2002 plan, morbidity, mortality and lapse rates were based on the issue age and duration starting at the time of the upgrade in our 2010 projection model rather than being based on the original issue age and duration from the issue date of the original coverage. This overstated our loss ratio.

Impacting P-FACE(2004) only
Limited pay policies were projected with premiums paid for life in our 2010 projection model rather than for the limited payment period which overstated premiums.

Ensuring No Cross-Subsidization Between States

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

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

Past Losses Testing
Preventing companies from recouping past losses was the subject of a recent discussion by the NAIC in late 2013. The accepted methodology by NAIC defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

> Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.

The rate increases we calculated follow the methodology described above to ensure that we are not recouping past losses.

Reset Form

Health Insurance Rate Request Summary
Part 1 – To Be Completed By Company

Company Name and NAIC Number: John Hancock Life Insurance Company (U.S.A.) #65838

SERFF Tracking Number: MULF-130882991

Effective Date: Upon Approval

(Projected) Number of Insureds Affected: 3103

New Rates

Average Annual Premium Per Member: $1004

Revised Rates

Average Annual Premium Per Member: $1146

Average Requested Percentage Rate Change Per Member: 14.1%

Minimum Requested Percentage Rate Change Per Member: -5.4%

Maximum Requested Percentage Rate Change Per Member: 18.8%

Plans Affected
(The Form Number and "Product Name")

Form#	**"Product Name"(if applicable)**
GPB-COV-0002 P-FACE(2002-2) VA et al	Group Long Term Care Care Choice

Attach a brief narrative to summarize the key information used to develop the rates including the main drivers for new or revised rates.

This document is intended to help explain the rate filing and it is only a summary of the company's request. It is not intended to describe or include all factors or information considered in the review process. For more detailed information, please refer to the complete filing.

Health Insurance Rate Request Summary

Accurate forecasting and projecting of future claims experience on LTC insurance policies is complex in its detail and application. Many factors are considered at the time that pricing is established, such as the frequency and severity of particular medical conditions, the expected lifespan of policyholders, the length of time policies are expected to remain inforce, and the cost of care, to name a few. As claims are paid, these factors can change over time.

Unfortunately, the most recent detailed review of our pricing assumptions confirms that the expected claims over the life of your policy series are significantly higher today than they were expected to be when the premiums were originally determined. In general, we are seeing more, longer-lasting claims - claim incidence has increased, claim terminations have decreased, claim utilization has increased, and mortality have decreased.

Our decision to increase premiums is solely related to the future claims anticipated on these policies.

As an alternative to paying higher premiums, we are offering several benefit reduction alternatives and, in most cases, at least one option that will enable the policyholder to keep their premiums at or close to the same level as what is being paid before the rate increase.

John Hancock Life Insurance Company (U.S.A.)

John Hancock Place
Post Office Box 111 C-7-30
Boston, Massachusetts 02117
1-888-877-6075 Ext. 1
Direct: (617) 572-0281
Email: jwitham@jhancock.com

Joanne Witham
Director
LTC Contracts and Legislative Services

March 9, 2017

Jacqueline Cunningham
Commissioner of Insurance
Virginia State Corporation Commission
Bureau of Insurance
Tyler Building, 6th Floor
1300 East Main Street
Richmond, Virginia 23219

Re: **John Hancock Life Insurance Company (U.S.A.)**
Company NAIC # 65838; FEIN #: 01-0233346
Group Long-Term Care Insurance Rate Revision Submission
Revised Actuarial Memos

Dear Commissioner:

John Hancock is requesting premium rate increases for the policy forms listed below. These rate increases are in response to the results of our most recently completed experience studies, refinements to our modeling approach and correction of certain projections and assumptions in our prior 2010 rate increase filing. A more thorough discussion of each of these elements is found in Appendix 1. In addition, Appendix 1 also addresses how John Hancock assures there is no cross subsidization between states and that past losses are not being recouped.

As a result of the factors noted above and emerging experience since our last filing, we are requesting a premium rate increase on the policy series listed below and are enclosing the actuarial memos and rates for your review and acceptance.

John Hancock Policy Series	Approval Dates	Years Policy Series Available for Sale	Rate Increase
GPB-COV-0002, et al	11/7/1997	1998-2012	8.4%
P-FACE(2002-2), et al.	10/28/2002 & 2/3/2012	2003-2012	17.1%

Alternative Options For Insureds

Insureds affected by the premium increase will receive a notice 90 days prior to the policy anniversary. We plan to offer to affected insureds that have purchased the automatic compound inflation feature an opportunity to keep their premium rate neutral by reducing their inflation on a prospective basis (they will keep any coverage that has already inflated). Below, we have included a table that illustrates the reduced automatic compound inflation percentage by policy series that we will offer to allow affected insureds to remain premium rate neutral. There are two tables – one for those currently receiving 5% inflation increase per year, and another table for those who have previously reduced their inflation rate to avoid the prior rate increase.

For insureds that are currently receiving a 5% inflation benefit:

John Hancock Policy Series	New Lower Automatic Compound Percentage*
P-FACE(2002-2), et al.	4.4%

For insureds that have previously reduced their inflation rate in order to avoid a rate increase:

John Hancock Policy Series	Current Automatic Compound Percentage*	New Lower Automatic Compound Percentage*
P-FACE(2002-2), et al.		
• Insureds with less than 10 year Lifetime Maximum Benefit	3.3%	2.5%
• Insureds with 10 year or greater Lifetime Maximum Benefit	2.3%	1.5%

**Please note these amounts were determined to be actuarially equivalent to the requested rate increases in aggregate.*

We will also allow affected insureds to reduce their benefit period, reduce their daily benefit amount, and/or drop optional benefit features.

In addition, if the requested increase is approved in full, we will make available the 2014 NAIC Model Contingent Nonforfeiture Benefit for all affected certificateholders, even if it is not otherwise required in your State.

Policy amendment forms, Certificate amendment forms and policyholder communications will be submitted to your department in separate SERFF filing # MULF-130883116 for review.

Subject to your acceptance, the new premium rates will be applied to all group policies that have been issued in your state. If coverage is issued in your state under group policies issued in another state, then the situs state laws and regulations will govern the premium rates for that coverage. Rates will be applied to group policies issued in your state as soon as practical based upon administrative and case feasibility following acceptance of this submission by your Department.

Please note the SERFF submission was created based on the department's request on similar prior submissions.

The following items are included in this submission:

- the submission letter
- Appendix 1.
- all actuarial material.
- all required certifications.

Please do not hesitate to contact us regarding this submission. We will be happy to meet with the Department either in person or via conference call at a time of your convenience.

Sincerely,

Joanne Witham

Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

	Calendar Year	Historical & Projected Experience without any Rate Increases: Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	13,818	0%
	1989	-	21,913	0%
	1990	-	208,922	0%
	1991	-	642,881	0%
	1992	-	833,221	0%
	1993	126	991,912	0%
	1994	-	1,864,540	0%
	1995	-	2,925,155	0%
	1996	11,871	3,371,808	0%
	1997	-	3,861,964	0%
	1998	-	4,095,544	0%
	1999	-	5,000,072	0%
	2000	-	6,333,535	0%
	2001	-	6,960,988	0%
	2002	-	7,911,777	0%
	2003	5,853	13,750,467	0%
	2004	1,639,220	37,936,848	4%
	2005	5,251,471	40,683,914	13%
Historical	2006	6,051,490	60,257,833	10%
Experience	2007	7,022,995	90,416,518	8%
	2008	12,675,266	129,455,072	10%
	2009	15,510,010	128,101,000	12%
	2010	16,685,059	155,130,177	11%
	2011	22,582,300	155,960,810	14%
	2012	28,596,208	156,829,921	18%
	2013	29,060,009	150,837,388	19%
	2014	32,605,203	145,660,181	22%
	2015	43,035,701	144,391,400	30%
	2016	42,592,258	140,238,684	30%
	2017	46,906,293	135,148,297	35%
Projected	2018	51,170,463	130,219,590	39%
Future	2019	55,504,773	125,372,189	44%
Experience	2020	60,138,458	120,595,779	50%
	2021	65,163,552	115,845,612	56%
	2022	70,468,470	111,129,525	63%
	2023	76,124,758	106,439,413	72%
	2024	82,136,463	101,772,751	81%
	2025	88,449,570	97,136,642	91%
	2026	95,004,547	92,530,712	103%
	2027	101,764,585	87,957,406	116%
	2028	108,639,944	83,420,224	130%
	2029	115,571,168	78,924,558	146%
	2030	122,489,788	74,475,838	164%
	2031	129,323,675	70,079,903	185%
	2032	136,017,584	65,743,434	207%
	2033	142,499,852	61,477,278	232%
	2034	148,696,867	57,294,460	260%
	2035	154,489,063	53,207,056	290%
	2036	159,720,148	49,227,002	324%
	2037	164,195,333	45,365,371	362%
	2038	167,800,920	41,636,920	403%
	2039	170,484,593	38,056,351	448%
	2040	172,096,804	34,635,740	497%
Values as of 12/31/2015 (discounted at original pricing interest rate)				
	Past :	283,775,836	2,092,263,492	13.6%
	Future :	1,481,120,927	1,280,746,879	115.6%
	Lifetime :	1,764,896,763	3,373,010,371	52.3%

Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

	Calendar Year	Historical & Projected Experience without any Rate Increases: Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	10,600	0%
	1991	-	13,706	0%
	1992	-	130,947	0%
	1993	-	452,593	0%
	1994	-	485,283	0%
	1995	2,193	529,250	0%
	1996	-	571,865	0%
	1997	919	701,676	0%
	1998	1,197,010	2,608,033	46%
	1999	1,064,546	8,837,184	12%
	2000	2,014,580	13,158,860	15%
	2001	1,150,909	14,097,318	8%
	2002	639,710	14,385,372	4%
	2003	1,758,729	14,975,334	12%
	2004	3,969,329	15,549,321	26%
	2005	2,076,144	16,365,989	13%
Historical	2006	3,115,422	17,134,513	18%
Experience	2007	2,691,952	20,443,071	13%
	2008	5,128,878	22,839,876	22%
	2009	6,770,512	23,661,335	29%
	2010	9,420,275	24,308,205	39%
	2011	6,981,761	24,953,275	28%
	2012	5,857,884	25,790,755	23%
	2013	7,539,079	25,767,030	29%
	2014	10,923,861	26,380,698	41%
	2015	12,875,033	27,531,125	47%
	2016	14,186,796	26,038,643	54%
	2017	15,149,584	24,465,893	62%
Projected	2018	16,149,524	22,985,751	70%
Future	2019	17,158,956	21,563,605	80%
Experience	2020	18,159,562	20,187,531	90%
	2021	19,137,781	18,856,773	101%
	2022	20,132,977	17,571,964	115%
	2023	21,140,693	16,333,231	129%
	2024	22,089,504	15,141,397	146%
	2025	22,996,309	13,997,192	164%
	2026	23,855,781	12,900,840	185%
	2027	24,683,384	11,853,425	208%
	2028	25,463,591	10,856,090	235%
	2029	26,073,259	9,909,275	263%
	2030	26,566,333	9,013,119	295%
	2031	26,936,369	8,168,126	330%
	2032	27,192,437	7,374,792	369%
	2033	27,341,963	6,632,767	412%
	2034	27,278,483	5,941,412	459%
	2035	27,096,184	5,300,444	511%
	2036	26,738,221	4,708,828	568%
	2037	26,246,331	4,165,348	630%
	2038	25,649,632	3,668,506	699%
	2039	24,905,702	3,216,547	774%
	2040	24,094,414	2,808,033	858%
	2041	23,127,917	2,441,008	947%
	2042	22,049,020	2,112,369	1044%
Values as of 12/31/2015 (discounted at original pricing interest rate)				
	Past :	129,184,791	593,768,766	21.8%
	Future :	286,655,813	189,118,298	151.6%
	Lifetime :	415,840,604	782,887,063	53.1%

Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

Original Assumptions

	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio
	2003	492,372	4,845,050	10%
	2004	1,616,469	17,363,179	9%
	2005	3,095,257	32,286,572	10%
Historical	2006	5,073,987	49,737,743	10%
Experience	2007	7,436,254	71,433,138	10%
	2008	10,925,415	100,728,070	11%
	2009	15,456,686	132,047,975	12%
	2010	21,029,784	161,765,338	13%
	2011	25,599,086	170,064,912	15%
	2012	29,847,875	170,405,024	18%
	2013	33,650,743	167,680,808	20%
	2014	37,775,342	163,539,147	23%
	2015	42,722,660	161,758,945	26%
	2016	47,715,298	157,106,737	30%
	2017	52,548,231	151,404,073	35%
Projected	2018	57,325,298	145,882,536	39%
Future	2019	62,180,944	140,452,085	44%
Experience	2020	67,371,974	135,101,163	50%
	2021	73,001,491	129,779,641	56%
	2022	78,944,490	124,496,299	63%
	2023	85,281,122	119,242,055	72%
	2024	92,015,922	114,014,082	81%
	2025	99,088,375	108,820,337	91%
	2026	106,431,792	103,660,401	103%
	2027	114,004,934	98,537,013	116%
	2028	121,707,268	93,454,094	130%
	2029	129,472,187	88,417,685	146%
	2030	137,222,985	83,433,868	164%
	2031	144,878,859	78,509,185	185%
	2032	152,377,919	73,651,121	207%
	2033	159,639,880	68,871,829	232%
	2034	166,582,279	64,185,896	260%
	2035	173,071,166	59,606,855	290%
	2036	178,931,451	55,148,077	324%
	2037	183,944,917	50,821,964	362%
	2038	187,984,187	46,645,051	403%
	2039	190,990,655	42,633,808	448%
	2040	192,796,784	38,801,762	497%
	2041	193,293,435	35,161,165	550%
	2042	192,550,503	31,719,694	607%
	2043	190,633,262	28,484,917	669%
	2044	187,651,521	25,463,677	737%
	2045	183,440,810	22,660,653	810%
	2046	178,046,214	20,075,581	887%
	2047	171,739,251	17,704,556	970%
	2048	164,764,587	15,542,106	1060%
	2049	157,333,693	13,582,873	1158%
	2050	149,286,176	11,819,808	1263%
	2051	140,735,043	10,243,205	1374%
	2052	131,915,719	8,840,015	1492%
	2053	123,038,042	7,596,683	1620%
	2054	114,156,312	6,502,590	1756%
	2055	105,164,460	5,545,564	1896%

Values as of 12/31/2015 (discounted at original pricing interest rate)

Past :	299,062,398	1,891,737,990	15.8%
Future :	1,659,271,672	1,434,796,428	115.6%
Lifetime :	1,958,334,070	3,326,534,418	58.9%

Exhibit 1b: Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience				
					Before Proposed Increase			With Proposed Rate Increase	
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	10,600	0%
	1991	-	-	-	-	13,706	0%	13,706	0%
	1992	-	-	-	-	130,947	0%	130,947	0%
	1993	22,669	281,316	8%	-	452,593	0%	452,593	0%
	1994	25,189	277,767	9%	-	485,283	0%	485,283	0%
	1995	28,811	260,385	11%	2,193	529,250	0%	529,250	0%
	1996	37,314	275,694	14%	-	571,865	0%	571,865	0%
	1997	56,334	340,026	17%	919	701,676	0%	701,676	0%
	1998	373,334	2,172,502	17%	1,197,010	2,608,033	46%	2,608,033	46%
	1999	1,262,039	7,817,601	16%	1,064,546	8,837,184	12%	8,837,184	12%
	2000	2,128,606	13,484,244	16%	2,014,580	13,158,860	15%	13,158,860	15%
	2001	2,255,732	14,457,922	16%	1,150,909	14,097,318	8%	14,097,318	8%
	2002	2,503,865	14,703,453	17%	639,710	14,385,372	4%	14,385,372	4%
	2003	2,959,247	15,177,636	19%	1,758,729	14,975,334	12%	14,975,334	12%
	2004	3,449,972	15,637,115	22%	3,969,329	15,549,321	26%	15,549,321	26%
	2005	3,941,024	16,245,505	24%	2,076,144	16,365,989	13%	16,365,989	13%
Historical	2006	4,391,987	16,735,040	26%	3,115,422	17,134,513	18%	17,134,513	18%
Experience	2007	5,223,845	19,785,983	26%	2,691,952	20,443,071	13%	20,443,071	13%
	2008	5,935,391	21,943,336	27%	5,128,878	22,839,876	22%	22,839,876	22%
	2009	6,485,578	22,353,012	29%	6,770,512	23,661,335	29%	23,661,335	29%
	2010	7,109,993	22,493,869	32%	9,420,275	24,308,205	39%	24,308,205	39%
	2011	7,796,365	22,672,561	34%	6,981,761	24,953,275	28%	24,953,275	28%
	2012	8,563,343	23,074,476	37%	5,857,884	26,492,112	22%	27,774,106	21%
	2013	9,286,190	22,542,561	41%	7,539,079	26,448,191	29%	27,698,829	27%
	2014	10,110,168	22,468,465	45%	10,923,861	27,056,178	40%	28,284,570	39%
	2015	11,035,505	22,923,431	48%	12,875,033	28,200,539	46%	30,519,537	42%
	2016	11,812,450	21,680,735	54%	10,395,546	27,602,710	38%	29,859,942	35%
	2017	12,614,103	20,371,206	62%	11,619,132	26,905,225	43%	28,994,449	40%
Projected	2018	13,446,690	19,138,785	70%	13,012,593	26,210,290	50%	28,033,527	46%
Future	2019	14,287,180	17,954,654	80%	14,550,755	25,510,229	57%	27,283,815	53%
Experience	2020	15,120,322	16,808,883	90%	16,137,135	24,798,055	65%	26,522,137	60%
	2021	15,934,823	15,700,846	101%	17,711,748	24,069,233	74%	25,743,545	68%
	2022	16,763,460	14,631,066	115%	19,374,013	23,320,771	83%	24,944,745	77%
	2023	17,602,521	13,599,651	129%	21,186,091	22,550,279	94%	24,123,068	87%
	2024	18,392,537	12,607,286	146%	23,043,116	21,755,739	106%	23,276,295	98%
	2025	19,147,576	11,654,578	164%	24,891,883	20,935,024	119%	22,402,095	110%
	2026	19,863,204	10,741,716	185%	26,681,176	20,087,362	133%	21,499,556	123%
	2027	20,552,296	9,869,599	208%	28,463,740	19,213,398	148%	20,569,265	137%
	2028	21,201,926	9,039,181	235%	30,404,855	18,314,489	166%	19,612,587	154%
	2029	21,709,558	8,250,828	263%	32,305,702	17,392,660	186%	18,631,572	172%
	2030	22,120,109	7,504,655	295%	34,084,760	16,454,131	207%	17,632,721	192%
	2031	22,428,215	6,801,083	330%	35,752,678	15,504,553	231%	16,621,941	213%
	2032	22,641,427	6,140,524	369%	37,261,526	14,548,784	256%	15,604,289	237%
	2033	22,765,927	5,522,687	412%	38,365,462	13,591,825	282%	14,584,976	261%
	2034	22,713,072	4,947,039	459%	39,069,149	12,639,291	309%	13,569,883	286%
	2035	22,561,283	4,413,346	511%	39,727,671	11,696,804	340%	12,564,928	314%
	2036	22,263,230	3,920,744	568%	40,211,252	10,770,137	373%	11,576,185	344%
	2037	21,853,664	3,468,223	630%	40,377,915	9,865,794	409%	10,610,563	377%
	2038	21,356,830	3,054,533	699%	40,232,324	8,991,267	447%	9,676,089	412%
	2039	20,737,407	2,678,216	774%	39,946,601	8,151,524	490%	8,778,070	451%
	2040	20,061,899	2,338,072	858%	39,374,819	7,350,791	536%	7,921,059	493%
	2041	19,257,157	2,032,473	947%	38,357,538	6,593,097	582%	7,109,414	535%
	2042	18,358,828	1,758,836	1044%	37,065,769	5,882,084	630%	6,347,086	579%

Net Level Premium Reserves (based on original pricing assumptions and discount rates)	**163,772,628**
Future Loss Ratio adjusted for Net Level Premium Reserves	**63%**

John Hancock Financial Services

Long Term Care
601 Congress Street
Boston Massachusetts 02210

(617) 572-0849
Naomi_Worts@jhancock.com

Naomi Worts, FSA, MAAA
Actuary, LTC Product & Risk Management

LONG-TERM CARE INSURANCE

March 22, 2018

Janet Houser
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A.)
2016 Inforce Rate Increase Filing
SERFF ID: MULF-130816976

Dear Ms. Houser,

This letter is in response to your objection dated March 24, 2017 regarding the above filing. Your questions/requests are included below in bold with our responses following.

1. **The project name in General Information indicates this is a Pre-RS filing yet the Actuarial Memorandum indicates the issue ranges for GPB-COV-0002 are from December 1998 through June 2012. If that is the case, please provide the number of policies issued prior to October 1, 2003 and the number of policies issued on or after October 1, 2003.**

   We apologize for the confusion. The dates listed for GPB-COV-0002 refer to the dates individuals purchased the product, not the range of dates employers were issued their group policy. We have ensured that all group policies in Virginia within GPB-COV-0002 were issued prior to 10/1/2003, even if individual certificate holders within these clients could purchase the product October 1, 2003 and later.

2. **Re-state the nationwide experience using Virginia approved rates.**

   For the P-FACE (2002-2) plan, all exhibits reflect only those rates approved in Virginia. This is done for all filings in all states in order to ensure that no state is subsidizing the rate actions from other states. This is accomplished by first backing-out all prior rate increases from our nationwide premium data. We then re-introduce prior rate increases with the amount and timing based on your state's prior approvals.

   For the GPB-COV-0002 plan, we have included the 2010 rate increase, which was not filed nor approved in Virginia, for the following reasons. There was a rate increase requested in 2010 on this plan, however, because it only impacted certain benefit periods and inflation options, no certificate holders sitused in your state were impacted. Because the loss ratio is based on nationwide data and all benefit period/inflation options, we have assumed for the purposes of this filing that the 2010 rate increase was approved on time and in full by your state. This is to ensure we are not penalizing Virginia policyholders; if we excluded the 2010 rate increase, Virginia policyholders would receive a higher rate increase than states that had approved the 2010 rate increase.

3. **Provide a separate calculation of the Lifetime Loss Ratio so that the historical premium component is restated to what it would be if the proposed premium had been charged (collected) since the forms' introduction.**

   Please see *'#3 VA CareChoice loss ratio exhibit since inception.pdf'* and *'#3 VA GLTC1997 loss ratio exhibit since inception.pdf'*.

   Please note that we do not believe it is right to assume that rate increase was applied at inception for the purposes of determining if an additional rate increase is needed. This methodology greatly expands the risk in the product, injecting additional pricing risk by not allowing companies to seek the appropriate premium levels needed to maintain the future financial health of the policies.

   Exhibit 1A: Past Losses Exhibit was included in the original filing package to demonstrate John Hancock is not recouping past losses from current rate increase request. From a discussion by the NAIC in late 2013, the accepted methodology, which was incorporated into the 2014 LTC Model Regulation, defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

   > Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.

   We apply this methodology in Exhibit 1A: Pass Losses Exhibit. The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing loss ratio to the actual earned premium in a given calendar year. Later, in years in which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed at that time.

4. **Please provide an actual-to-expected analysis on each assumption, with expected on both original and current assumption basis.**

   We always determine actual to expected (A/E) ratios based on our current assumptions, so once we make a change to our assumptions we no longer track A/Es based on the prior assumptions. The last time we looked at A/E ratios using original pricing assumptions was in 2010, so the following tables reflect A/E ratios using our previous and current best estimate assumptions. While we usually complete triennial studies, we found that our quarterly morbidity and termination A/Es from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

Lapse:

Fully Underwritten

Duration	Exposure	Actual Count	Expected Count	A/E Previous - Count	A/E Revised - Count	A/E Revised - Amount
1-5	76,278	1,835	2,260	61%	81.2%	78.4%
6-10	68,108	1,053	1,027	88%	102.6%	92.9%
11+	120,353	1,003	919	99%	109.2%	99.8%
Total	264,738	3,892	4,206	76.6%	92.5%	85.2%

Guaranteed Issue

Duration	Expos Count	Actual Count	Expected Count	A/E Previous - Count	A/E Revised - Count	A/E Revised - Amount
1	62,264	5,987	5,433	124.2%	110.2%	100.2%
2	58,416	4,656	4,286	124.6%	108.6%	100.5%
3-5	163,802	8,608	7,874	108.7%	109.3%	97.1%
6-10	154,900	5,681	4,747	125.8%	119.7%	102.6%
11+	198,481	2,697	2,442	158.2%	110.4%	100.1%
TOTAL	637,863	27,629	24,783	121.8%	111.5%	99.7%

Mortality:

Fully Underwritten*

Dur	Expos Count	Actual Count	Expected Count	A/E Previous	A/E Revised	A/E Revised – Amount
1-5	76,686	92	78	89%	117%	118%
6-10	68,195	186	172	77%	108%	105%
11+	122,333	1,186	1,186	78%	100%	96%
Total	267,215	1,463	1,436	78%	102%	100%

*Note that when determining mortality assumptions for fully underwritten policies, the data is combined with our Individual experience to determine assumptions.

Guaranteed Issue

Dur	Expos Count	Actual Count	Expected Count	A/E Previous*	A/E Revised	A/E Revised - Amount
1-5	314,336	633	636	73.3%	99.6%	104.5%
6-10	167,834	493	481	74.6%	102.4%	104.3%
11+	202,290	1,074	1,076	68.7%	99.8%	96.2%
Total	685,160	2,200	2,193	71.2%	100.3%	101.1%

*Note there was an issue in the 2010 experience study, resulting in the over-counting of deaths (this is outlined in Appendix 1, which was provided to you as part of our 2016 rate increase filing). This caused mortality rates to be overstated. Fixing the error in the study brought our A/E based on our previous assumptions down (though more exposure following the 2010 study brought the A/E down as well).

Morbidity:

Incidence

Duration	Actual Count	A/E Previous	Expected	A/E Revised
1-3	1,156	112%	1,010	114%
4-6	1,323	105%	1,247	106%
7-9	1,498	97%	1,507	99%
10+	7,246	96%	7,249	100%
Total	11,223	98%	11,013	102%

Claim Terminations

Duration from Issue to Incurral (years)	A/E original	A/E Revised	Actual
1-3	77%	95%	634
4-6	86%	102%	801
7-9	80%	100%	979
10+	71%	99%	3571
Total	75%	99%	5,985

Benefit Utilization

Duration from Issue to Incurral (years)	Previous A/E	Expected $ New	A/E Revised
1-3	78%	47,789,467	111%
4-6	79%	49,812,930	112%
7-9	77%	59,250,546	110%
10+	69%	224,687,465	98%
Total	72%	381,540,408	103%

5. **Please provide a step-by-step quantification of the impact of the change in each assumption from the original assumptions to the current assumptions.**

The table below shows the attribution of our cumulative rate increase request (including 2010) by category.

Attribution of Cumulative Rate Increase Request		
	Policy Series	
Assumption	**P-FACE (2002-2)**	**GPB-COV-0002**
Morbidity	37.24%	-44.77%
Mortality	10.22%	8.39%
Lapse	16.54%	75.39%
Refinements	9.80%	2.60%
Other	-3.90%	3.30%
Total	**86.01%**	**11.27%**

The total impact of assumption changes on premiums for both Policy Series is a higher premium increase than the average increase we are requesting. This is due to the impact of various limitations we have applied in our 2010 rate increase (capping all increases at 100%, grading down to 0% at age 80, and new business rate caps).

In the 2010 rate increase filing, we updated our morbidity and lapse assumptions in accordance with our 2010 experience study. For P-FACE(2002-2), the 2010 study confirmed that the incidence and length of claims assumptions were significantly underestimated, while the rate of voluntary lapse assumption was above the actual experience level. For P-FACE(2002-2), approximately 2/3 of rate increase is related to morbidity assumption change and 1/3 related to our lapse assumption. We requested the full rate increase in 2010 that we thought was necessary at the time and certified that based on our anticipated costs at the time, no further premium rate increases were necessary.

Our most recent comprehensive experience studies show unfavorable trends since the prior study that prompted our last rate increase filing. The largest impact with respect to updating assumptions is attributable to a decrease to mortality rates. Due to the durations at which the updates to mortality rates were made, there was a larger loss ratio impact to more recently issued plans (P-FACE(2002-2)). As discussed in Appendix 1 in our initial filing, refinements also caused the need for a rate increase.

6. **Please use the average maximum statutory valuation interest rate for each block of business to accumulate and discount cash flows.**

Please see *'#6 VA CareChoice loss ratio exhibit by interest rate.pdf'* and *'#6 VA GLTC1997 loss ratio exhibit by interest rate.pdf'*. There are two pages for each block of business – each showing the portion of business that uses a 4.0% and 4.5% discount rate. The sum of the values on these two tabs match the loss ratio exhibits that have been previously provided in our initial filing.

7. **Please provide sufficient detail or documentation provided so that any projections can be recreated. Please provide a copy of all projections in Excel with working formulas.**

   Our projection is done in our actuarial software GGY AXIS. A reconciliation spreadsheet to replicate calculations from our GGY AXIS model is not readily available. Alternatively, if there is other information we could provide (in place of the projections in Excel) that would help in your analysis, please let us know.

8. **According to item 20 of the memorandum, the Company has stated no state's rate increase approvals will subsidize other states' experience. For review purposes, please advise in what states the company has requested rate increases on this block, how the rate changes requested in Virginia compare with those requested in other states, and the current status of the reviews in other states.**

   Please see *'2016 Rate Increase Filing Summary 03142018.pdf'*.

9. **Please provide a loss ratio projection reflecting the actual historical experience during the historical experience period and then, utilizing the actual inforce as of the projection date, projecting forward the expected earned premiums and incurred claims using the original pricing assumptions for interest, mortality, morbidity and persistency into the future and assuming the future premiums are paid based on the original premium scale as if no increases had ever been implemented.**

   Please see *'#9 VA CareChoice loss ratio exhibit.pdf'* and *'#9 VA GLTC1997 loss ratio exhibit.pdf'*.

10. **Please provide a loss ratio projection (both past and future) which reflects all of the original pricing assumptions for interest, mortality, morbidity, persistency and premium scale, but uses the actual distribution of policies as issued rather than the originally assumed mix of business.**

    We always project our original pricing assumptions reflecting the actual mix of business, not our assumed mix of business. Please see *'#10 VA CareChoice loss ratio exhibit.pdf'* and *'#10 VA GLTC1997 loss ratio exhibit.pdf'*.

11. **Please provide a detailed explanation of the data sources and actuarial review performed in setting each assumption, including discussion of any adjustments made to reflect the company's unique business.**

    Our future assumptions are set by analyzing our experience on not only this product, but other John Hancock Group and Retail products that have more experience at older ages and later durations where we are seeing unfavorable morbidity unfold. This methodology is consistent with the attached American Academy of Actuaries Issue Brief *Understanding Premium Rate Increases on Private LTCI Policyholders 060216.pdf*. The brief provides guidance on determining the need for premium rate increases on pages 4 and 5. This guidance includes a discussion on determining assumptions used for projections, particularly in situations where experience credibility may be low. Because of the long duration nature of Long Term Care policies, claims are often not seen in early durations which leads to lower credibility in actual experience for younger groups of policies. In situations where this is the case, the Actuarial Standards of Practice require that industry data or company data for older, similar business be used to set assumptions. Specifically, the brief states the following:

    'Section 3.2.1 of Actuarial Standard of Practice No. 18, *Long-Term Care Insurance*, requires actuaries to use alternative data sources such as public data or experience from the insurance company's older, similar policy forms for identifying reasonable assumptions. Waiting until there is adequate claim information on each policy form could result in much larger, less affordable rate increases.'

While P-FACE(2002-2) and P-FACE(2004) are younger blocks of insureds, our proposed rate increases on these forms is based on our experience from this form as well as similar forms where we have over 20 years of experience and much more ultimate exposure at the older attained ages. Overall, our unfavorable morbidity experience is at later durations and older attained ages, so we have a lot of data on our older plans and less on these younger ones. With our combined data we are able to make credible decisions regarding future assumptions, in accordance with ASOP 18.

For morbidity, our most recent morbidity study is as of 9/30/2012 where we take snapshots of the policy and claim extracts. While we usually complete triennial studies, we found that our quarterly morbidity A/Es from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data. Incidence, continuance and salvage are constructed from these data sources. More specifically active life exposure, claim incurrals, on-claim exposure, claim termination, dollars paid, and maximum payable amounts are the elements built from the data. Since population and industry data is extremely limited and since we have almost all company data from inception, we do not use credibility weighting in developing new assumptions. Instead, trends are analyzed using from-inception data. The fit of various attributes are tested against the actual experience to identify areas that require revisions. Assumptions in Excel-based models are then revised to determine the best fit. Regression models built with Matlab are also used to validate the excel-based fit models.

Key dimensions for long term care morbidity are the following: attained age, issue age, gender, underwriting, selection/anti-selection and wear-off, benefit period, elimination period, inflation of benefits, calendar year of incurral (captures environmental and other trends), issue year (captures underwriting era difference), coverage types.

See *'2013 Long Term Care Morbidity Final.pdf'* for our most recent comprehensive claims study for the Group business.

Modeling Overview

An iterative approach was used to fit new modifiers to the existing expected assumptions. For refitting incidence, we used duration 10+ data where possible, with the view that duration 10+ is a reasonable proxy for ultimate experience. We used all durations' data where we lacked sufficient duration 10+ data. For continuance, we fit on all durations from issue, as select/ultimate effects are not as pronounced for claim terminations. For salvage, we used all durations' data as well.

We used the A/E ratios as the modifiers for each chosen dimension. Once we had cycled through all of the chosen dimensions, we reviewed the fit across all of the dimensions. As a general rule, if the |standard errors| (SE) were < 1.64, we stopped. (A SE of 1.64 is consistent with our corporate standard on credibility.) If not, we cycled through the assumptions again, applying the residual A/E ratios to the modifiers and continuing until our criteria was met. This approach has many similarities to a more technical regression approach. This modeling was done in EXCEL. This approach was used for incidence and continuance, but not for salvage, due to limitations in what could be coded into the valuation system for salvage changes.

Our most current Lapse/Mortality Study is based on our experience from 4/1/2009 to 3/31/2012. While we usually complete triennial studies, we found that our quarterly lapse and morbidity A/Es from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data. The key sources of data are inforce and termination records from a date after the study – in this study, September 2012. We also use the Social Security Administration list of deaths as of September 2012. In addition to the death scrub, we also move 25% of lapse to death for attained age 80+. In 2007, we conducted a poll of lapsed policies at higher attained

ages and determined that one quarter of them were truly deaths. We then reclassified 25% of the lapses at attained ages 80 and above as deaths.

Adjustments are then made to our expected assumptions to get our A/E's closer to 100% - for lapse we focus on later durations as we no longer sell new business so our assumption in early durations is no longer material. Our lapse assumption varies by issue age, duration, and underwriting (guaranteed issue vs. fully underwritten). For mortality, our assumption varies by issue age, duration, underwriting, and gender.

12. **Please provide the reserve basis and justification for the reserve levels provided.**

    Based on discussions had during the 2010 inforce rate increase filing process, we have provided Exhibit 1b in our initial filing which uses Net Level Reserves based on U.S. Statutory assumptions without margins (i.e. original pricing assumptions) and without reflecting any prior rate increases. This exhibit is intended to show compliance with the standards outlined in 14VAC5-200-153.

13. **For each projection provided, please provide the anticipated future loss ratio where the numerator is equal to the anticipated incurred claims less policy reserves, and the denominator is equal to the anticipated earned premium for the pre stability block.**

    Please see *'#13 VA Pre-RS GLTC1997 loss ratio exhibit_adj res.pdf'* and *'#13 VA Pre-RS CareChoice loss ratio exhibit_adj res.pdf'*. The future loss ratio adjusted for policy reserves is illustrated at the bottom of the exhibit. This information can also be found in the filing packages Exhibit 1b: Nationwide Loss Ratio Exhibit.

14. **The actuarial certification for the Pre-Stability block should be revised for compliance with 14VAC5-130-70 B 14.**

    We have revised our actuarial memorandum in accordance with the standards outlined in 14VAC5-130-70 B 14.

15. **For the post stability block, please respond to the following:**
    Please explain what, if any, margins are included in the proposed rates to ensure that future rate increases will not be needed presuming the experience develops as projected including a demonstration that actual and projected costs exceed costs anticipated at the time of initial pricing under moderately adverse experience and that the composite margin is projected to be exhausted.

    GPB-COV-0002 has no margin included in the proposed rates (it is a pre-rate stability block).

    A margin for moderately adverse experience of 5% is included in the proposed rates for the Care Choice product series. This is because the product was originally priced with the same 5% margin as the product was sold just prior to rate stabilization rules coming into effect.

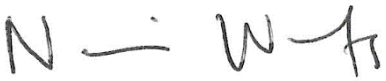
    The attached file 'Pre-RS Demonstration Rate Increase Needed.pdf' shows our original pricing loss ratios on the left-hand side. Next, in the middle columns, it shows the loss ratio that we certified to in our prior filing. Both of these sets of cashflows reflect the margins we priced with (a 5% increase to claims for P-FACE(2002-2)). The right set of columns show our current experience **without** our margins for adverse deviation. Our current lifetime loss ratio without these margins are higher than our certified loss ratios (and our original pricing loss ratios), which demonstrates our need for a rate increase.

16. **How does the company plan to comply with 14VAC5-200-153.G.1.**

We are voluntarily giving all certificate holders the option to elect contingent non-forfeiture as part of the rate increase. If we didn't offer this benefit voluntarily, 6% of certificate holders in VA would be eligible for contingent nonforfeiture based on the applicable age and cumulative rate increase triggers.

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,



Naomi Worts, FSA, MAAA

Nationwide Loss Ratio Exhibit: Rate Increase Since Inception
Care Choice (P-FACE(2002-2))

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	17,754	0%	-	20,751	0%
	1989	-	-	-	-	28,143	0%	-	32,891	0%
	1990	-	-	-	-	263,779	0%	-	307,926	0%
	1991	-	-	-	-	804,862	0%	-	939,395	0%
	1992	-	-	-	-	1,044,154	0%	-	1,218,671	0%
	1993	-	-	-	134	1,242,680	0%	134	1,450,341	0%
	1994	-	-	-	-	2,328,427	0%	-	2,717,928	0%
	1995	-	-	-	-	3,667,351	0%	-	4,281,337	0%
	1996	-	-	-	12,665	4,232,666	0%	12,665	4,941,559	0%
	1997	-	-	-	-	4,813,243	0%	-	5,619,247	0%
	1998	-	-	-	-	5,095,897	0%	-	5,949,208	0%
	1999	-	-	-	-	6,216,150	0%	-	7,257,361	0%
	2000	-	-	-	-	7,846,735	0%	-	9,161,040	0%
	2001	-	-	-	-	8,628,924	0%	-	10,074,301	0%
	2002	-	-	-	-	9,810,701	0%	-	11,454,018	0%
	2003	509,636	4,845,050	11%	6,454	17,256,920	0%	6,454	20,155,510	0%
	2004	1,673,263	17,363,179	10%	1,783,644	46,293,594	4%	1,783,644	52,189,254	3%
	2005	3,204,184	32,286,572	10%	5,763,357	55,433,222	10%	5,763,357	64,927,022	9%
Historical	2006	5,252,667	49,737,743	11%	6,646,734	82,328,605	8%	6,646,734	96,063,838	7%
Experience	2007	7,698,354	71,433,138	11%	7,713,359	121,670,736	6%	7,713,359	140,660,037	5%
	2008	11,310,542	100,728,070	11%	13,925,013	171,167,666	8%	13,925,013	196,191,756	7%
	2009	16,001,529	132,047,975	12%	17,080,052	180,151,920	9%	17,080,052	211,213,222	8%
	2010	21,770,846	161,765,338	13%	18,237,144	215,464,119	8%	18,237,144	251,743,310	7%
	2011	26,501,041	170,064,912	16%	24,516,433	217,407,341	11%	24,516,433	254,845,881	10%
	2012	30,899,526	170,405,024	18%	31,155,792	216,964,198	14%	31,155,792	254,282,718	12%
	2013	34,836,482	167,680,808	21%	31,468,380	206,531,357	15%	31,468,380	241,988,570	13%
	2014	39,106,732	163,539,147	24%	35,292,728	197,767,403	18%	35,292,728	231,670,189	15%
	2015	44,228,702	161,758,945	27%	46,562,193	194,033,995	24%	46,562,193	227,249,132	20%
	2016	49,397,673	157,106,737	31%	48,958,774	190,755,402	26%	49,000,463	223,398,465	22%
	2017	54,401,435	151,404,073	36%	54,871,632	186,176,317	29%	54,426,802	215,670,999	25%
Projected	2018	59,347,573	145,882,536	41%	61,526,638	181,819,933	34%	59,765,663	206,005,250	29%
Future	2019	64,375,235	140,452,085	46%	69,076,897	177,620,137	39%	67,157,159	201,250,911	33%
Experience	2020	69,750,293	135,101,163	52%	77,444,265	173,525,822	45%	75,331,595	196,617,123	38%
	2021	75,579,486	129,779,641	58%	86,783,003	169,498,371	51%	84,438,792	192,060,005	44%
	2022	81,733,464	124,496,299	66%	97,313,027	165,491,781	59%	94,693,791	187,527,302	50%
	2023	88,295,204	119,242,055	74%	109,209,148	161,458,762	68%	106,267,887	182,965,319	58%
	2024	95,269,409	114,014,082	84%	122,312,666	157,363,262	78%	119,009,511	178,333,082	67%
	2025	102,593,448	108,820,337	94%	136,582,022	153,170,176	89%	132,878,846	173,590,686	77%
	2026	110,198,331	103,660,401	106%	152,121,320	148,849,155	102%	147,976,586	168,703,611	88%
	2027	118,041,368	98,537,013	120%	168,975,079	144,372,929	117%	164,346,175	163,640,825	100%
	2028	126,018,477	93,454,094	135%	187,968,475	139,714,975	135%	182,786,695	158,372,139	115%
	2029	134,060,723	88,417,685	152%	208,870,364	134,842,664	155%	203,076,127	152,860,462	133%
	2030	142,088,692	83,433,868	170%	230,569,234	129,740,117	178%	224,138,024	147,087,682	152%
	2031	150,018,756	78,509,185	191%	252,886,942	124,404,599	203%	245,798,103	141,050,568	174%
	2032	157,786,811	73,651,121	214%	275,284,878	118,840,048	232%	267,533,510	134,753,437	199%
	2033	165,309,738	68,871,829	240%	297,073,573	113,057,378	263%	288,675,301	128,208,504	225%
	2034	172,502,114	64,185,896	269%	318,009,366	107,076,215	297%	308,985,548	121,437,845	254%
	2035	179,225,217	59,606,855	301%	337,678,361	100,925,829	335%	328,061,070	114,474,475	287%
	2036	185,297,664	55,148,077	336%	355,535,163	94,646,872	376%	345,372,200	107,364,313	322%
	2037	190,493,413	50,821,964	375%	370,417,867	88,290,322	420%	359,793,341	100,164,992	359%
	2038	194,680,492	46,645,051	417%	381,603,841	81,914,375	466%	370,624,372	92,942,354	399%
	2039	197,798,142	42,633,808	464%	389,994,233	75,578,820	516%	378,736,170	85,764,109	442%
	2040	199,672,763	38,801,762	515%	395,576,162	69,342,087	570%	384,115,850	78,696,468	488%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	284,042,001	1,700,247,214	16.7%	282,336,827	2,494,580,930	11.3%	282,336,827	2,909,061,963	9.7%
	Future :	2,608,072,723	1,741,865,729	149.7%	4,333,983,199	2,445,211,094	177.2%	4,211,940,803	2,783,321,944	151.3%
	Lifetime :	2,892,114,725	3,442,112,943	84.0%	4,616,320,026	4,939,792,024	93.5%	4,494,277,630	5,692,383,908	79.0%

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

Accum. Value of Past Incurred Claims =	282,336,827
Present Value of Future Incurred Claims =	4,211,940,803
Total =	4,494,277,630

Accum Value of Past Initial Prm x 84.0% =	1,545,731,890
Present Value of Future Initial Prm x 84.0% =	1,469,037,856
Accum Value of Prior Increases x 85.0% =	908,969,341
Present Value of Future Increases x 85.0% =	879,677,530
Total =	4,803,416,616

Nationwide Loss Ratio Exhibit: Rate Increase Since Inception
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	-	11,264	0%
	1991	-	-	-	-	13,706	0%	-	14,572	0%
	1992	-	-	-	-	130,947	0%	-	147,539	0%
	1993	24,454	281,316	9%	-	452,593	0%	-	513,767	0%
	1994	27,056	277,767	10%	-	485,283	0%	-	550,869	0%
	1995	30,873	260,385	12%	2,362	529,250	0%	2,362	599,007	0%
	1996	39,951	275,694	14%	-	571,865	0%	-	644,052	0%
	1997	60,502	340,026	18%	1,018	701,676	0%	1,018	791,255	0%
	1998	406,653	2,172,502	19%	1,313,565	2,626,952	50%	1,313,565	2,969,937	44%
	1999	1,375,485	7,817,601	18%	1,187,766	8,950,380	13%	1,187,766	10,024,627	12%
	2000	2,329,223	13,484,244	17%	2,259,297	13,431,397	17%	2,259,297	15,220,583	15%
	2001	2,460,490	14,457,922	17%	1,257,275	14,397,361	9%	1,257,275	16,297,576	8%
	2002	2,722,355	14,703,453	19%	703,751	14,689,292	5%	703,751	16,570,821	4%
	2003	3,210,454	15,177,636	21%	1,915,689	15,267,894	13%	1,915,689	17,182,886	11%
	2004	3,738,588	15,637,115	24%	4,384,408	15,848,456	28%	4,384,408	17,782,540	25%
	2005	4,267,186	16,245,505	26%	2,274,982	16,675,320	14%	2,274,982	18,613,664	12%
Historical	2006	4,751,223	16,735,040	28%	3,412,276	17,426,505	20%	3,412,276	19,391,304	18%
Experience	2007	5,649,022	19,785,983	29%	2,930,445	21,034,611	14%	2,930,445	23,413,530	13%
	2008	6,409,192	21,943,336	29%	5,635,647	23,593,485	24%	5,635,647	26,162,912	22%
	2009	6,996,212	22,353,012	31%	7,391,751	24,363,389	30%	7,391,751	26,920,128	27%
	2010	7,665,257	22,493,869	34%	10,315,052	25,039,611	41%	10,315,052	27,597,567	37%
	2011	8,398,064	22,672,561	37%	7,630,583	25,693,551	30%	7,630,583	28,186,440	27%
	2012	9,218,261	23,074,476	40%	6,353,771	26,492,112	24%	6,353,771	28,989,480	22%
	2013	9,984,633	22,542,561	44%	8,147,104	26,448,191	31%	8,147,104	28,851,919	28%
	2014	10,856,997	22,468,465	48%	11,900,827	27,056,178	44%	11,900,827	29,359,025	41%
	2015	11,838,133	22,923,431	52%	13,947,743	28,200,539	49%	13,947,743	30,519,537	46%
	2016	12,661,559	21,680,735	58%	11,214,553	27,602,710	41%	11,220,309	29,859,942	38%
	2017	13,512,298	20,371,206	66%	12,509,192	26,905,225	46%	12,483,421	28,994,449	43%
Projected	2018	14,391,599	19,138,785	75%	13,987,417	26,210,290	53%	13,865,045	28,033,527	49%
Future	2019	15,281,761	17,954,654	85%	15,622,311	25,510,229	61%	15,492,880	27,283,815	57%
Experience	2020	16,165,566	16,808,883	96%	17,311,273	24,798,055	70%	17,172,676	26,522,137	65%
	2021	17,027,132	15,700,846	108%	18,990,141	24,069,233	79%	18,841,047	25,743,545	73%
	2022	17,898,591	14,631,066	122%	20,762,310	23,320,771	89%	20,600,440	24,944,745	83%
	2023	18,774,991	13,599,651	138%	22,694,873	22,550,279	101%	22,517,544	24,123,068	93%
	2024	19,609,276	12,607,286	156%	24,672,780	21,755,739	113%	24,478,890	23,276,295	105%
	2025	20,407,533	11,654,578	175%	26,641,808	20,935,024	127%	26,430,933	22,402,095	118%
	2026	21,160,319	10,741,716	197%	28,548,959	20,087,362	142%	28,321,274	21,499,556	132%
	2027	21,877,203	9,869,599	222%	30,446,563	19,213,398	158%	30,201,601	20,569,265	147%
	2028	22,542,544	9,039,181	249%	32,511,190	18,314,489	178%	32,246,644	19,612,587	164%
	2029	23,076,050	8,250,828	280%	34,530,123	17,392,660	199%	34,246,252	18,631,572	184%
	2030	23,505,518	7,504,655	313%	36,421,638	16,454,131	221%	36,119,521	17,632,721	205%
	2031	23,823,899	6,801,083	350%	38,197,539	15,504,553	246%	37,878,042	16,621,941	228%
	2032	24,033,545	6,140,524	391%	39,800,770	14,548,784	274%	39,465,275	15,604,289	253%
	2033	24,141,451	5,522,687	437%	40,965,786	13,591,825	301%	40,618,614	14,584,976	278%
	2034	24,080,205	4,947,039	487%	41,703,023	12,639,291	330%	41,348,224	13,569,883	305%
	2035	23,904,347	4,413,346	542%	42,398,520	11,696,804	362%	42,035,745	12,564,928	335%
	2036	23,581,205	3,920,744	601%	42,910,425	10,770,137	398%	42,540,970	11,576,185	367%
	2037	23,141,315	3,468,223	667%	43,081,909	9,865,794	437%	42,708,759	10,610,563	403%
	2038	22,601,899	3,054,533	740%	42,917,195	8,991,267	477%	42,543,355	9,676,089	440%
	2039	21,937,576	2,678,216	819%	42,605,148	8,151,524	523%	42,231,557	8,778,070	481%
	2040	21,201,322	2,338,072	907%	41,989,346	7,350,791	571%	41,618,776	7,921,059	525%
	2041	20,345,058	2,032,473	1001%	40,898,378	6,593,097	620%	40,535,556	7,109,414	570%
	2042	19,397,620	1,758,836	1103%	39,511,068	5,882,084	672%	39,158,716	6,347,086	617%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	135,910,788	451,883,061	30.1%	120,516,105	493,042,758	24.4%	120,516,105	547,018,897	22.0%
	Future :	360,549,501	187,541,196	192.3%	552,393,354	319,578,153	172.9%	547,863,277	342,998,824	159.7%
	Lifetime :	496,460,289	639,424,258	77.6%	672,909,459	812,620,911	82.8%	668,379,382	890,017,721	75.1%

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

Accum. Value of Past Incurred Claims =	120,516,105
Present Value of Future Incurred Claims =	547,863,277
Total =	668,379,382

Accum Value of Past Initial Prm x 77.6% =	373,942,349
Present Value of Future Initial Prm x 77.6% =	238,999,151
Accum Value of Prior Increases x 85.0% =	55,584,603
Present Value of Future Increases x 85.0% =	29,899,520
Total =	698,425,624

Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

Average maximum statutory valuation interest rate: 4.5%

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	13,818	0%	-	13,818	0%
	1989	-	-	-	-	21,913	0%	-	21,913	0%
	1990	-	-	-	-	208,922	0%	-	208,922	0%
	1991	-	-	-	-	642,881	0%	-	642,881	0%
	1992	-	-	-	-	833,221	0%	-	833,221	0%
	1993	-	-	-	-	991,912	0%	-	991,912	0%
	1994	-	-	-	-	1,864,540	0%	-	1,864,540	0%
	1995	-	-	-	-	2,925,155	0%	-	2,925,155	0%
	1996	-	-	-	-	3,371,808	0%	-	3,371,808	0%
	1997	-	-	-	-	3,861,964	0%	-	3,861,964	0%
	1998	-	-	-	-	4,095,544	0%	-	4,095,544	0%
	1999	-	-	-	-	5,000,072	0%	-	5,000,072	0%
	2000	-	-	-	-	6,333,535	0%	-	6,333,535	0%
	2001	-	-	-	-	6,960,988	0%	-	6,960,988	0%
	2002	-	-	-	-	7,911,777	0%	-	7,911,777	0%
	2003	509,636	4,845,050	11%	6,454	13,750,467	0%	6,454	13,750,467	0%
	2004	1,673,263	17,363,179	10%	1,782,423	37,936,848	5%	1,782,423	37,936,848	5%
	2005	3,204,184	32,286,572	10%	5,708,564	40,683,914	14%	5,708,564	40,683,914	14%
Historical	2006	4,515,607	40,000,544	11%	4,712,491	48,170,083	10%	4,712,491	48,170,083	10%
Experience	2007	5,147,077	38,488,661	13%	4,072,767	46,952,586	9%	4,072,767	46,952,586	9%
	2008	5,599,243	37,272,661	15%	6,159,092	44,073,298	14%	6,159,092	44,073,298	14%
	2009	6,105,257	36,542,975	17%	4,478,852	41,758,674	11%	4,478,852	41,758,674	11%
	2010	7,102,128	36,059,626	20%	5,405,218	37,935,839	14%	5,405,218	37,935,839	14%
	2011	8,302,172	35,504,770	23%	7,918,223	35,670,929	22%	7,918,223	35,670,929	22%
	2012	9,396,574	35,123,215	27%	8,105,943	35,865,408	23%	8,105,943	37,438,391	22%
	2013	10,371,425	34,839,936	30%	8,815,072	41,219,171	21%	8,815,072	43,565,299	20%
	2014	11,423,127	34,451,140	33%	10,174,987	42,164,971	24%	10,174,987	45,119,061	23%
	2015	12,585,503	34,281,577	37%	13,257,438	43,126,588	31%	13,257,438	50,025,979	27%
	2016	13,781,148	33,434,602	41%	13,477,043	42,823,445	31%	13,486,761	49,916,890	27%
	2017	15,074,493	32,247,423	47%	15,271,173	42,183,564	36%	15,142,730	48,855,614	31%
Projected	2018	16,458,243	31,084,208	53%	17,349,298	41,268,540	42%	16,844,842	46,747,796	36%
Future	2019	17,930,669	29,934,790	60%	19,698,765	40,367,428	49%	19,140,129	45,728,058	42%
Experience	2020	19,511,388	28,795,650	68%	22,223,039	39,469,724	56%	21,603,007	44,712,350	48%
	2021	21,198,936	27,659,416	77%	24,961,406	38,566,214	65%	24,271,456	43,690,215	56%
	2022	22,955,803	26,525,220	87%	28,071,815	37,646,983	75%	27,298,673	42,650,406	64%
	2023	24,790,287	25,390,679	98%	31,716,248	36,699,583	86%	30,841,981	41,578,802	74%
	2024	26,701,646	24,255,443	110%	35,776,450	35,712,505	100%	34,787,605	40,462,333	86%
	2025	28,667,003	23,121,690	124%	39,950,383	34,676,991	115%	38,843,317	39,291,045	99%
	2026	30,663,585	21,989,777	139%	44,158,467	33,589,100	131%	42,931,570	38,060,451	113%
	2027	32,684,997	20,860,616	157%	48,594,492	32,447,433	150%	47,239,541	36,768,942	128%
	2028	34,709,787	19,736,039	176%	53,717,684	31,250,704	172%	52,211,767	35,415,038	147%
	2029	36,754,304	18,619,491	197%	59,384,253	29,994,633	198%	57,709,892	33,993,863	170%
	2030	38,833,200	17,513,867	222%	65,021,480	28,677,322	227%	63,179,485	32,503,236	194%
	2031	40,912,669	16,420,851	249%	70,490,195	27,299,940	258%	68,485,074	30,944,448	221%
	2032	42,917,998	15,342,202	280%	75,782,800	25,866,953	293%	73,618,804	29,322,525	251%
	2033	44,760,578	14,281,229	313%	80,813,590	24,386,089	331%	78,497,380	27,646,180	284%
	2034	46,421,530	13,243,337	351%	85,490,494	22,870,846	374%	83,031,445	25,930,664	320%
	2035	47,855,236	12,232,629	391%	89,503,215	21,337,456	419%	86,920,025	24,194,336	359%
	2036	48,959,759	11,252,215	435%	93,061,117	19,803,106	470%	90,365,201	22,456,653	402%
	2037	49,719,750	10,305,063	482%	95,739,414	18,280,962	524%	92,956,067	20,732,516	448%
	2038	50,199,579	9,394,172	534%	97,114,009	16,782,630	579%	94,282,366	19,035,068	495%
	2039	50,427,002	8,524,037	592%	97,484,999	15,318,990	636%	94,634,383	17,376,642	545%
	2040	50,331,763	7,698,869	654%	97,167,647	13,900,869	699%	94,317,090	15,769,525	598%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	105,781,729	546,611,469	19.4%	99,898,084	774,072,044	12.9%	99,898,084	788,734,702	12.7%
	Future :	623,267,547	354,149,017	176.0%	1,020,974,831	521,074,906	195.9%	992,070,576	592,856,261	167.3%
	Lifetime :	729,049,276	900,760,486	80.9%	1,120,872,915	1,295,146,951	86.5%	1,091,968,660	1,381,590,964	79.0%

Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

Average maximum statutory valuation interest rate: 4.0%

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	-	-	-	-	-
	1989	-	-	-	-	-	-	-	-	-
	1990	-	-	-	-	-	-	-	-	-
	1991	-	-	-	-	-	-	-	-	-
	1992	-	-	-	-	-	-	-	-	-
	1993	-	-	-	134	-	-	134	-	-
	1994	-	-	-	-	-	-	-	-	-
	1995	-	-	-	-	-	-	-	-	-
	1996	-	-	-	12,665	-	-	12,665	-	-
	1997	-	-	-	-	-	-	-	-	-
	1998	-	-	-	-	-	-	-	-	-
	1999	-	-	-	-	-	-	-	-	-
	2000	-	-	-	-	-	-	-	-	-
	2001	-	-	-	-	-	-	-	-	-
	2002	-	-	-	-	-	-	-	-	-
	2003	-	-	-	-	-	-	-	-	-
	2004	-	-	-	1,221	-	-	1,221	-	-
	2005	-	-	-	54,793	-	-	54,793	-	-
Historical	2006	737,061	9,737,199	8%	1,934,243	12,087,750	16%	1,934,243	12,087,750	16%
Experience	2007	2,551,277	32,944,477	8%	3,640,592	43,463,932	8%	3,640,592	43,463,932	8%
	2008	5,711,299	63,455,409	9%	7,765,921	85,381,774	9%	7,765,921	85,381,774	9%
	2009	9,896,272	95,505,000	10%	12,601,200	86,342,326	15%	12,601,200	86,342,326	15%
	2010	14,668,718	125,705,712	12%	12,831,926	117,194,338	11%	12,831,926	117,194,338	11%
	2011	18,198,869	134,560,143	14%	16,598,210	120,289,881	14%	16,598,210	120,289,881	14%
	2012	21,502,952	135,281,808	16%	23,049,850	126,515,909	18%	23,049,850	132,064,638	17%
	2013	24,465,057	132,840,872	18%	22,653,308	147,536,992	15%	22,653,308	155,934,556	15%
	2014	27,683,605	129,088,007	21%	25,117,741	147,163,233	17%	25,117,741	157,473,531	16%
	2015	31,643,199	127,477,368	25%	33,304,756	147,840,322	23%	33,304,756	171,536,524	19%
	2016	35,616,525	123,672,135	29%	35,480,607	146,505,183	24%	35,511,125	170,821,347	21%
	2017	39,326,942	119,156,651	33%	39,600,459	143,992,753	28%	39,284,072	166,815,385	24%
Projected	2018	42,889,330	114,798,327	37%	44,177,340	140,551,393	31%	42,920,822	159,257,453	27%
Future	2019	46,444,566	110,517,295	42%	49,378,132	137,252,709	36%	48,017,030	155,522,853	31%
Experience	2020	50,238,905	106,305,513	47%	55,221,226	134,056,098	41%	53,728,588	151,904,773	35%
	2021	54,380,550	102,120,225	53%	61,821,597	130,932,157	47%	60,167,336	148,369,790	41%
	2022	58,777,661	97,971,078	60%	69,241,212	127,844,798	54%	67,395,118	144,876,896	47%
	2023	63,504,918	93,851,376	68%	77,492,900	124,759,179	62%	75,425,906	141,386,517	53%
	2024	68,567,763	89,758,638	76%	86,536,216	121,650,756	71%	84,221,906	137,870,749	61%
	2025	73,926,446	85,698,646	86%	96,631,639	118,493,185	82%	94,035,529	134,299,642	70%
	2026	79,534,747	81,670,624	97%	107,962,852	115,260,055	94%	105,045,016	130,643,161	80%
	2027	85,356,371	77,676,397	110%	120,380,587	111,925,495	108%	117,106,634	126,871,883	92%
	2028	91,308,691	73,718,055	124%	134,250,790	108,464,271	124%	130,574,928	122,957,101	106%
	2029	97,306,418	69,798,194	139%	149,486,111	104,848,031	143%	145,366,235	118,866,599	122%
	2030	103,255,493	65,920,001	157%	165,547,753	101,062,795	164%	160,958,539	114,584,446	140%
	2031	109,106,087	62,088,335	176%	182,396,747	97,104,660	188%	177,313,029	110,106,120	161%
	2032	114,868,813	58,308,919	197%	199,502,078	92,973,094	215%	193,914,705	105,430,911	184%
	2033	120,549,160	54,590,599	221%	216,259,982	88,671,289	244%	210,177,921	100,562,324	209%
	2034	126,080,583	50,942,560	247%	232,518,872	84,205,369	276%	225,954,104	95,507,182	237%
	2035	131,369,981	47,374,227	277%	248,175,147	79,588,373	312%	241,141,045	90,280,139	267%
	2036	136,337,905	43,895,862	311%	262,474,046	74,843,765	351%	255,006,999	84,907,660	300%
	2037	140,773,663	40,516,901	347%	274,678,452	70,009,361	392%	266,837,274	79,432,476	336%
	2038	144,480,914	37,250,879	388%	284,489,832	65,131,746	437%	276,342,006	73,907,286	374%
	2039	147,371,140	34,109,771	432%	292,509,235	60,259,830	485%	284,101,787	68,387,467	415%
	2040	149,341,000	31,102,894	480%	298,408,515	55,441,218	538%	289,798,760	62,926,943	461%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	178,260,272	1,153,635,745	15.5%	182,438,743	1,207,836,846	15.1%	182,438,743	1,258,565,239	14.5%
	Future :	1,984,805,176	1,387,716,713	143.0%	3,313,007,266	1,922,737,831	172.3%	3,219,867,702	2,187,858,471	147.2%
	Lifetime :	2,163,065,448	2,541,352,458	85.1%	3,495,446,009	3,130,574,677	111.7%	3,402,306,445	3,446,423,711	98.7%

Nationwide Loss Ratio Exhibit

Group Long-Term Care (GPB-Cov-0002)

Average maximum statutory valuation interest rate: 4.5%

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	-	10,600	0%
	1991	-	-	-	-	13,706	0%	-	13,706	0%
	1992	-	-	-	-	130,947	0%	-	130,947	0%
	1993	24,454	281,316	9%	-	452,593	0%	-	452,593	0%
	1994	27,056	277,767	10%	-	485,283	0%	-	485,283	0%
	1995	30,873	260,385	12%	2,362	529,250	0%	2,362	529,250	0%
	1996	39,951	275,694	14%	-	571,865	0%	-	571,865	0%
	1997	60,502	340,026	18%	1,018	701,676	0%	1,018	701,676	0%
	1998	406,653	2,172,502	19%	1,313,565	2,608,033	50%	1,313,565	2,608,033	50%
	1999	1,375,485	7,817,601	18%	1,187,766	8,837,184	13%	1,187,766	8,837,184	13%
	2000	2,329,223	13,484,244	17%	2,259,297	13,158,860	17%	2,259,297	13,158,860	17%
	2001	2,460,490	14,457,922	17%	1,257,275	14,097,318	9%	1,257,275	14,097,318	9%
	2002	2,722,355	14,703,453	19%	703,751	14,385,372	5%	703,751	14,385,372	5%
	2003	3,210,454	15,177,636	21%	1,915,689	14,975,334	13%	1,915,689	14,975,334	13%
	2004	3,738,588	15,637,115	24%	4,384,408	15,549,321	28%	4,384,408	15,549,321	28%
	2005	4,267,186	16,245,505	26%	2,274,982	16,365,989	14%	2,274,982	16,365,989	14%
Historical	2006	4,696,698	16,380,659	29%	3,412,276	16,786,399	20%	3,412,276	16,786,399	20%
Experience	2007	5,073,682	15,986,668	32%	2,842,140	16,696,914	17%	2,842,140	16,696,914	17%
	2008	5,562,864	16,022,126	35%	5,030,596	16,991,233	30%	5,030,596	16,991,233	30%
	2009	6,087,542	16,089,377	38%	6,544,285	17,413,959	38%	6,544,285	17,413,959	38%
	2010	6,571,257	15,723,232	42%	9,118,015	17,469,384	52%	9,118,015	17,469,384	52%
	2011	7,127,987	15,667,058	45%	6,853,337	17,800,663	39%	6,853,337	17,800,663	39%
	2012	7,719,392	15,556,398	50%	5,592,611	18,177,078	31%	5,592,611	18,180,058	31%
	2013	8,313,199	15,164,142	55%	8,102,275	18,193,427	45%	8,102,275	18,196,550	45%
	2014	9,004,880	15,201,247	59%	10,220,060	18,727,076	55%	10,220,060	18,730,451	55%
	2015	9,742,294	15,254,644	64%	12,486,591	19,269,392	65%	12,486,591	19,771,895	63%
	2016	10,377,568	14,376,121	72%	9,931,142	18,816,378	53%	9,933,244	19,298,403	51%
	2017	11,027,663	13,445,253	82%	11,036,258	18,323,231	60%	11,012,626	19,446,557	57%
Projected	2018	11,697,523	12,566,542	93%	12,308,341	17,816,011	69%	12,199,067	18,764,092	65%
Future	2019	12,364,583	11,723,215	105%	13,702,158	17,290,171	79%	13,586,307	18,206,897	75%
Experience	2020	13,011,337	10,909,493	119%	15,106,251	16,743,529	90%	14,982,244	17,628,111	85%
	2021	13,631,161	10,125,115	135%	16,453,074	16,175,069	102%	16,320,124	17,026,676	96%
	2022	14,239,006	9,370,755	152%	17,854,255	15,584,560	115%	17,710,519	16,402,344	108%
	2023	14,836,624	8,646,640	172%	19,377,973	14,972,440	129%	19,221,153	15,755,581	122%
	2024	15,379,747	7,953,445	193%	20,910,444	14,338,790	146%	20,739,817	15,086,488	137%
	2025	15,870,966	7,291,742	218%	22,365,678	13,683,707	163%	22,181,539	14,395,193	154%
	2026	16,306,539	6,661,711	245%	23,676,337	13,008,485	182%	23,479,681	13,683,064	172%
	2027	16,695,091	6,064,091	275%	24,909,615	12,315,728	202%	24,700,647	12,952,842	191%
	2028	17,018,886	5,499,624	309%	26,242,479	11,608,028	226%	26,019,568	12,207,250	213%
	2029	17,209,284	4,968,475	346%	27,480,011	10,888,818	252%	27,243,873	11,449,894	238%
	2030	17,292,962	4,470,510	387%	28,521,683	10,164,988	281%	28,274,089	10,688,011	265%
	2031	17,277,567	4,005,863	431%	29,379,434	9,442,657	311%	29,121,937	9,928,028	293%
	2032	17,172,907	3,574,575	480%	30,022,756	8,726,880	344%	29,757,223	9,175,218	324%
	2033	16,979,220	3,175,944	535%	30,249,413	8,022,768	377%	29,979,999	8,434,919	355%
	2034	16,645,354	2,809,125	593%	30,101,111	7,335,511	410%	29,831,484	7,712,551	387%
	2035	16,209,246	2,473,557	655%	29,891,702	6,669,853	448%	29,622,026	7,013,060	422%
	2036	15,678,035	2,168,039	723%	29,554,094	6,030,307	490%	29,285,351	6,341,142	462%
	2037	15,084,984	1,891,447	798%	28,987,361	5,421,028	535%	28,721,745	5,701,117	504%
	2038	14,434,022	1,642,530	879%	28,199,115	4,845,521	582%	27,938,844	5,096,620	548%
	2039	13,719,814	1,419,616	966%	27,369,577	4,306,083	636%	27,114,983	4,530,028	599%
	2040	12,963,763	1,221,382	1061%	26,318,549	3,804,166	692%	26,072,044	4,002,834	651%
	2041	12,159,615	1,046,358	1162%	25,014,992	3,341,001	749%	24,779,334	3,516,304	705%
	2042	11,337,974	892,426	1270%	23,603,508	2,917,482	809%	23,379,877	3,071,357	761%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	122,183,023	380,987,933	32.1%	111,879,532	409,339,287	27.3%	111,879,532	409,863,541	27.3%
	Future :	250,332,749	116,902,624	214.1%	385,630,107	201,702,111	191.2%	382,387,389	211,915,232	180.4%
	Lifetime :	372,515,772	497,890,557	74.8%	497,509,639	611,041,399	81.4%	494,266,921	621,778,773	79.5%

Nationwide Loss Ratio Exhibit

Group Long-Term Care (GPB-Cov-0002)

Average maximum statutory valuation interest rate: 4.0%

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	-	-	-	-	-
	1991	-	-	-	-	-	-	-	-	-
	1992	-	-	-	-	-	-	-	-	-
	1993	-	-	-	-	-	-	-	-	-
	1994	-	-	-	-	-	-	-	-	-
	1995	-	-	-	-	-	-	-	-	-
	1996	-	-	-	-	-	-	-	-	-
	1997	-	-	-	-	-	-	-	-	-
	1998	-	-	-	-	-	-	-	-	-
	1999	-	-	-	-	-	-	-	-	-
	2000	-	-	-	-	-	-	-	-	-
	2001	-	-	-	-	-	-	-	-	-
	2002	-	-	-	-	-	-	-	-	-
	2003	-	-	-	-	-	-	-	-	-
	2004	-	-	-	-	-	-	-	-	-
	2005	-	-	-	-	-	-	-	-	-
Historical	2006	54,525	354,381	15%	-	348,114	0%	-	348,114	0%
Experience	2007	575,340	3,799,315	15%	88,305	3,746,157	2%	88,305	3,746,157	2%
	2008	846,328	5,921,210	14%	605,051	5,848,643	10%	605,051	5,848,643	10%
	2009	908,670	6,263,636	15%	847,466	6,247,376	14%	847,466	6,247,376	14%
	2010	1,094,000	6,770,637	16%	1,197,037	6,838,822	18%	1,197,037	6,838,822	18%
	2011	1,270,078	7,005,503	18%	777,246	7,152,612	11%	777,246	7,152,612	11%
	2012	1,498,869	7,518,078	20%	761,160	8,315,034	9%	761,160	8,316,913	9%
	2013	1,671,434	7,378,419	23%	44,829	8,254,765	1%	44,829	8,256,801	1%
	2014	1,852,116	7,267,218	25%	1,680,767	8,329,103	20%	1,680,767	8,331,684	20%
	2015	2,095,839	7,668,787	27%	1,461,152	8,931,147	16%	1,461,152	9,451,600	15%
	2016	2,283,991	7,304,614	31%	1,283,411	8,786,331	15%	1,283,855	9,297,468	14%
	2017	2,484,635	6,925,953	36%	1,472,934	8,581,993	17%	1,470,795	9,547,891	15%
Projected	2018	2,694,076	6,572,243	41%	1,679,076	8,394,279	20%	1,665,978	9,269,435	18%
Future	2019	2,917,178	6,231,439	47%	1,920,152	8,220,058	23%	1,906,574	9,076,918	21%
Experience	2020	3,154,230	5,899,390	53%	2,205,022	8,054,526	27%	2,190,432	8,894,025	25%
	2021	3,395,971	5,575,730	61%	2,537,067	7,894,164	32%	2,520,923	8,716,869	29%
	2022	3,659,585	5,260,311	70%	2,908,056	7,736,211	38%	2,889,921	8,542,400	34%
	2023	3,938,366	4,953,011	80%	3,316,900	7,577,839	44%	3,296,390	8,367,487	39%
	2024	4,229,529	4,653,841	91%	3,762,336	7,416,949	51%	3,739,073	8,189,807	46%
	2025	4,536,567	4,362,836	104%	4,276,129	7,251,317	59%	4,249,394	8,006,902	53%
	2026	4,853,780	4,080,004	119%	4,872,622	7,078,877	69%	4,841,593	7,816,492	62%
	2027	5,182,112	3,805,508	136%	5,536,949	6,897,670	80%	5,500,954	7,616,423	72%
	2028	5,523,658	3,539,557	156%	6,268,711	6,706,462	93%	6,227,076	7,405,337	84%
	2029	5,866,766	3,282,353	179%	7,050,111	6,503,842	108%	7,002,378	7,181,678	98%
	2030	6,212,556	3,034,145	205%	7,899,955	6,289,143	126%	7,845,432	6,944,710	113%
	2031	6,546,332	2,795,220	234%	8,818,104	6,061,896	145%	8,756,105	6,693,914	131%
	2032	6,860,638	2,565,948	267%	9,778,014	5,821,904	168%	9,708,051	6,429,071	151%
	2033	7,162,231	2,346,743	305%	10,716,373	5,569,057	192%	10,638,615	6,150,057	173%
	2034	7,434,851	2,137,914	348%	11,601,913	5,303,780	219%	11,516,741	5,857,333	197%
	2035	7,695,102	1,939,789	397%	12,506,818	5,026,951	249%	12,413,719	5,551,868	224%
	2036	7,903,170	1,752,705	451%	13,356,331	4,739,830	282%	13,255,619	5,235,043	253%
	2037	8,056,332	1,576,775	511%	14,094,547	4,444,766	317%	13,987,014	4,909,446	285%
	2038	8,167,878	1,412,003	578%	14,718,080	4,145,746	355%	14,604,511	4,579,469	319%
	2039	8,217,762	1,258,599	653%	15,235,571	3,845,441	396%	15,116,574	4,248,042	356%
	2040	8,237,560	1,116,690	738%	15,670,797	3,546,624	442%	15,546,732	3,918,225	397%
	2041	8,185,443	986,115	830%	15,883,387	3,252,096	488%	15,756,222	3,593,110	439%
	2042	8,059,646	866,410	930%	15,907,560	2,964,602	537%	15,778,839	3,275,729	482%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	13,727,765	70,895,129	19.4%	8,636,573	75,248,020	11.5%	8,636,573	75,785,918	11.4%
	Future :	110,216,752	70,638,572	156.0%	166,763,247	117,876,042	141.5%	165,472,746	129,845,829	127.4%
	Lifetime :	123,944,517	141,533,701	87.6%	175,399,820	193,124,062	90.8%	174,109,320	205,631,747	84.7%

Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

Original Assumptions

	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1993	22,669	281,316	8%
	1994	25,189	277,767	9%
	1995	28,811	260,385	11%
	1996	37,314	275,694	14%
	1997	56,334	340,026	17%
	1998	373,334	2,172,502	17%
	1999	1,262,039	7,817,601	16%
	2000	2,128,606	13,484,244	16%
	2001	2,255,732	14,457,922	16%
	2002	2,503,865	14,703,453	17%
	2003	2,959,247	15,177,636	19%
	2004	3,449,972	15,637,115	22%
	2005	3,941,024	16,245,505	24%
Historical	2006	4,391,987	16,735,040	26%
Experience	2007	5,223,845	19,785,983	26%
	2008	5,935,391	21,943,336	27%
	2009	6,485,578	22,353,012	29%
	2010	7,109,993	22,493,869	32%
	2011	7,796,365	22,672,561	34%
	2012	8,563,343	23,074,476	37%
	2013	9,286,190	22,542,561	41%
	2014	10,110,168	22,468,465	45%
	2015	11,035,505	22,923,431	48%
	2016	11,812,450	21,680,735	54%
	2017	12,614,103	20,371,206	62%
Projected	2018	13,446,690	19,138,785	70%
Future	2019	14,287,180	17,954,654	80%
Experience	2020	15,120,322	16,808,883	90%
	2021	15,934,823	15,700,846	101%
	2022	16,763,460	14,631,066	115%
	2023	17,602,521	13,599,651	129%
	2024	18,392,537	12,607,286	146%
	2025	19,147,576	11,654,578	164%
	2026	19,863,204	10,741,716	185%
	2027	20,552,296	9,869,599	208%
	2028	21,201,926	9,039,181	235%
	2029	21,709,558	8,250,828	263%
	2030	22,120,109	7,504,655	295%
	2031	22,428,215	6,801,083	330%
	2032	22,641,427	6,140,524	369%
	2033	22,765,927	5,522,687	412%
	2034	22,713,072	4,947,039	459%
	2035	22,561,283	4,413,346	511%
	2036	22,263,230	3,920,744	568%
	2037	21,853,664	3,468,223	630%
	2038	21,356,830	3,054,533	699%
	2039	20,737,407	2,678,216	774%
	2040	20,061,899	2,338,072	858%
	2041	19,257,157	2,032,473	947%
	2042	18,358,828	1,758,836	1044%
	2043	17,423,268	1,514,877	1150%
	2044	16,463,326	1,299,304	1267%
	2045	15,503,295	1,110,057	1397%
Values as of 12/31/2015 (discounted at original pricing interest rate)				
	Past :	149,399,794	558,907,388	26.7%
	Future :	238,680,209	157,466,875	151.6%
	Lifetime :	388,080,004	716,374,263	54.2%

Exhibit 1b: Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

		Original Assumptions			Historical & Projected Experience				
					Before Proposed Increase			With Proposed Rate Increase	
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	13,818	0%	13,818	0%
	1989	-	-	-	-	21,913	0%	21,913	0%
	1990	-	-	-	-	208,922	0%	208,922	0%
	1991	-	-	-	-	642,881	0%	642,881	0%
	1992	-	-	-	-	833,221	0%	833,221	0%
	1993	-	-	-	126	991,912	0%	991,912	0%
	1994	-	-	-	-	1,864,540	0%	1,864,540	0%
	1995	-	-	-	-	2,925,155	0%	2,925,155	0%
	1996	-	-	-	11,871	3,371,808	0%	3,371,808	0%
	1997	-	-	-	-	3,861,964	0%	3,861,964	0%
	1998	-	-	-	-	4,095,544	0%	4,095,544	0%
	1999	-	-	-	-	5,000,072	0%	5,000,072	0%
	2000	-	-	-	-	6,333,535	0%	6,333,535	0%
	2001	-	-	-	-	6,960,988	0%	6,960,988	0%
	2002	-	-	-	-	7,911,777	0%	7,911,777	0%
	2003	468,926	4,845,050	10%	5,853	13,750,467	0%	13,750,467	0%
	2004	1,539,494	17,363,179	9%	1,639,220	37,936,848	4%	37,936,848	4%
	2005	2,947,864	32,286,572	9%	5,251,471	40,683,914	13%	40,683,914	13%
Historical	2006	4,832,369	49,737,743	10%	6,051,490	60,257,833	10%	60,257,833	10%
Experience	2007	7,082,147	71,433,138	10%	7,022,995	90,416,518	8%	90,416,518	8%
	2008	10,405,157	100,728,070	10%	12,675,266	129,455,072	10%	129,455,072	10%
	2009	14,720,654	132,047,975	11%	15,510,010	128,101,000	12%	128,101,000	12%
	2010	20,028,366	161,765,338	12%	16,685,059	155,130,177	11%	155,130,177	11%
	2011	24,380,082	170,064,912	14%	22,582,300	155,960,810	14%	155,960,810	14%
	2012	28,426,547	170,405,024	17%	28,596,208	162,381,317	18%	169,503,029	17%
	2013	32,048,327	167,680,808	19%	29,060,009	188,756,163	15%	199,499,855	15%
	2014	35,976,517	163,539,147	22%	32,605,203	189,328,204	17%	202,592,592	16%
	2015	40,688,248	161,758,945	25%	43,035,701	190,966,910	23%	221,562,503	19%
	2016	45,443,141	157,106,737	29%	45,697,015	189,328,627	24%	220,738,237	21%
	2017	50,045,934	151,404,073	33%	51,319,047	186,176,317	28%	215,670,999	24%
Projected	2018	54,595,522	145,882,536	37%	57,638,683	181,819,933	32%	206,005,250	27%
Future	2019	59,219,947	140,452,085	42%	64,794,288	177,620,137	36%	201,250,911	31%
Experience	2020	64,163,785	135,101,163	47%	72,708,792	173,525,822	42%	196,617,123	36%
	2021	69,525,229	129,779,641	54%	81,530,253	169,498,371	48%	192,060,005	41%
	2022	75,185,229	124,496,299	60%	91,474,318	165,491,781	55%	187,527,302	47%
	2023	81,220,116	119,242,055	68%	102,710,345	161,458,762	64%	182,965,319	55%
	2024	87,634,211	114,014,082	77%	115,088,081	157,363,262	73%	178,333,082	63%
	2025	94,369,881	108,820,337	87%	128,560,159	153,170,176	84%	173,590,686	72%
	2026	101,363,611	103,660,401	98%	143,225,987	148,849,155	96%	168,703,611	83%
	2027	108,576,128	98,537,013	110%	159,137,259	144,372,929	110%	163,640,825	95%
	2028	115,911,684	93,454,094	124%	177,074,112	139,714,975	127%	158,372,139	109%
	2029	123,306,845	88,417,685	139%	196,815,776	134,842,664	146%	152,860,462	125%
	2030	130,688,557	83,433,868	157%	217,313,708	129,740,117	167%	147,087,682	144%
	2031	137,979,866	78,509,185	176%	238,400,520	124,404,599	192%	141,050,568	164%
	2032	145,121,828	73,651,121	197%	259,585,610	118,840,048	218%	134,753,437	187%
	2033	152,037,981	68,871,829	221%	280,226,741	113,057,378	248%	128,208,504	212%
	2034	158,649,790	64,185,896	247%	300,071,296	107,076,215	280%	121,437,845	240%
	2035	164,829,682	59,606,855	277%	318,718,575	100,925,829	316%	114,474,475	271%
	2036	170,410,906	55,148,077	309%	335,657,957	94,646,872	355%	107,364,313	304%
	2037	175,185,635	50,821,964	345%	349,819,565	88,290,322	396%	100,164,992	339%
	2038	179,032,559	46,645,051	384%	360,518,696	81,914,375	440%	92,942,354	377%
	2039	181,895,862	42,633,808	427%	368,563,544	75,578,820	488%	85,764,109	417%
	2040	183,615,985	38,801,762	473%	373,937,733	69,342,087	539%	78,696,468	461%
Values as of 12/31/2015 (discounted at original pricing interest rate)									
	Past :	284,821,332	1,891,737,990	15.1%	283,775,836	2,239,627,493	12.7%	2,307,233,670	12.3%
	Future :	1,580,258,735	1,434,796,428	110.1%	2,585,709,679	1,973,355,990	131.0%	2,246,984,091	111.9%
	Lifetime :	1,865,080,067	3,326,534,418	56.1%	2,869,485,516	4,212,983,483	68.1%	4,554,217,761	61.5%

Net Level Premium Reserves (based on original pricing assumptions and discount rates)	**815,101,377**
Future Loss Ratio adjusted for Net Level Premium Reserves	**76%**

Long Term Care
2013 Morbidity Study

Prepared By: Wesley DeNering, Actuary
Kevin Kang, Actuarial Associate
Albert Michaud, Sr. Actuarial Associate
Fennie Tsai, Associate Actuary

Date: 9/30/2013
Sign-Off: Zahir Bhanji, VP
Tony Teta, SVP

Table of Contents

Executive Summary **2**
Description 3
Sources of and Adjustments to the Data 3
Dimension for Analysis 5
Observed Experience Overview 6
Modeling Overview 7
JH Retail Experience and Justifications 8
Fortis Experience and Justifications 24
Group Experience and Justifications 36
Appendix 1 – JH Retail Recommendations 48
Appendix 2 – Fortis Recommendations 55
Appendix 3 – Group Recommendations 61
Appendix 4 – Disabled Life Reserve Assumptions 65
Appendix 5 – Other Analyses 69

Executive Summary

The 2013 LTC Morbidity Experience Study is an in-depth analysis of the major morbidity elements that make up pricing and valuation for John Hancock Retail, Fortis and Group long-term care products. Most assumptions associated with these products were last updated in 2010. Neither combination products nor the Federal plan are included in this study. The revisions found in this study are intended to cover valuation of all stand-alone LTC coverage except for Custom Care III, Leading Edge and later.

JH Retail and Fortis experience has been unfavorable since the last update, while Group has been close to expected in aggregate. Trends are emerging across many different attributes and across all claim cost components; there is no one single driver to the changes seen. For JH retail, the primary drivers are unfavorable claim termination experience for Custom Care and later products along with issues related to salvage for all products. For Fortis, deterioration in experience in the later product series (4060+) and recognition of experience differentials for products with comprehensive coverage vs. stand-alone nursing or home care coverage are the primary drivers.

Group experience has very large but offsetting changes in claim termination and salvage experience. This is due, in part, to inclusion in this study of claims where the only benefit received has been waiver of premium and also to the amount of time since the last full study of all group claim cost components.

Claim cost components of incidence, continuance and salvage across a large number of attributes were reviewed using near-complete from-inception data as of 9/30/2012. Some attributes were excluded from the main study, with separate smaller studies conducted and included here in an appendix.

Revised assumptions were developed by focusing on experience from policy durations 10+ where possible. A simple refitting method was used based on actual to expected patterns found in various attributes. This fit was validated through confidence interval hypothesis tests across a large number of cross sections of attributes. In addition, regression models, using Matlab software, were constructed concurrently to confirm the fit of the Excel models. Besides the statistical fit, materiality and smoothness were also considered to form a final recommendation.

In 2012, the IFRS valuation model was converted from use of a “claim cost” approach to a “first principles” approach. These approaches use mortality decrements very differently, and this affects morbidity experience analysis. The claim cost approach decrements lives only in total, so movements between healthy and LTC disabled statuses have very little effect on the number of total lives remaining at future durations. Also, incidence at incurral and claim terminations during the Elimination Period (EP) are used in this approach, but the focus is on getting the right number of claims at the end of the EP. Past experience analysis has focused on the EP met point, with earlier time-points “back-solved”.

The first principles model tracks active lives and disabled lives separately, with active lives decremented by active life mortality, lapse and LTC morbidity, and LTC disabled lives decremented by disabled mortality and recovery. Therefore, the claim incidence at incurral along with the subsequent disabled deaths that occur during the EP are critical. This meant experience analysis needed to switch from measuring claim experience from the EP met point to the incurral point.

As a result, at-incurral claim data is used for the 2013 morbidity analysis while the past morbidity studies used at-EP-met data. Because this represents a significant departure in methodology, we produced results on both bases and compared these extensively for consistency.

This file is located at:

Xx pbosfile04\shared\altdist&prodmgmt\rltcindividual\ltc_protected\prod_dev\morbidity experience analysis team\morbidity study basis change\2013 morbidity study\final files\document\2013 Long Term Care Morbidity Study5.

Description

Long Term Care morbidity claim costs can be described as a probability of claiming (incidence rate) times severity. The components of claim severity are length of care (continuance on claim) and salvage factor (dollars used compared to maximum available; 'salvage factor' is 1 minus the salvage percent). Also, continuance on claim is analogous to active life expectancy. As such, the actual underlying element measured is claim termination (analogous to mortality rates), not the length of care.

This study analyzes each of these components for all stand-alone John Hancock LTC products. The following are excluded or treated separately:

- Pre-Advantage series plans sold from 1987-1991 make up less than 1% of total JH Retail business, and are excluded from the main analysis, but are studied separately.
- Policies with the Waiver of Elimination Period for Home Healthcare Services are also removed from the main JH Retail block for the study, and are studied separately. Other riders are included, but not studied as separate attributes in the main study.
- Fortis excludes "PSRT" claims from claim termination and Salvage studies. (These are claims from an old converted claim operations system that has technical issues.)
- Group policies sold on a Guaranteed Issue basis to employee's spouses and business transferred in are excluded in the main study. Modified GI business is partially excluded. "GI spouses" policies are studied separately.

The last full experience studies for JH Retail and Fortis were conducted in 2010. At that time, only incidence was studied in detail for Group. A full analysis is carried out this time for all three lines of business.

Sources of data

9/30/2012 snapshots of the policy and claim extracts from the following systems are used for the study.

PNO (JH Retail policy admin system)

- PNO 'purged' file (JH Retail policy admin archived data)
- LifePro (JH Retail and Fortis policy and claim admin system)
- 'Psrt' Fortis files (old archived Fortis claim data)
- CSPP (JH Retail claim admin system for policies administered on PNO)
- Promise (JH Retail, Fortis and Group claim admin for new claims 7/1/2009 and later)
- GLTC Care (group policy and claim admin system)
- 'missing claims' (very early CSPP claims missing from the CSPP system)

Incidence, continuance and salvage are constructions from these data sources. More specifically active life exposure, claim incurrals, on-claim exposure, claim termination, dollars paid, and maximum payable amounts are the elements built from the data.

Since population and industry data is extremely limited and since we have almost all company data from inception, we do not use credibility weighting in developing new assumptions. Instead, trends are analyzed using from-inception data. The fit of various attributes, such as marital, are tested against the actual experience to identify areas that require revisions. Assumptions in Excel-based models are then revised to determine the best fit. Regression models built with Matlab are also used to validate the excel-based fit models. Industry trends provided by Milliman were reviewed and incorporated into the 2010 study. The Milliman industry factors are being reviewed as part of this study.

For a more detailed discussion of modeling considerations or general terminology used, refer to the following documents:

LTC glossary.doc

Modeling considerations.doc

Adjustments to Data

IBNR

The incidence component of the study is built using data from inception through 9/30/2012 with 9/30/2012 as the cut-off for exposure and claims. This construction requires IBNR. The last six months (from 4/1/2012 to 9/30/2012) of exposure at seriatim level is used to calculate IBNR which then is included in the actual claim count.

The continuance and salvage components are based on 9/30/2012 data with 9/30/2011 as the cut-off due to IBNR type issues. The past research has indicated impact of incurred-but-not reported payments, closed but not terminated claims, and not yet submitted bills is significant but not easily estimated. By cutting off claims and on-claim exposure through 9/30/2011 using 9/30/2012 data eliminates most of these issues.

Policy Replacement

JH Retail policies that were upgraded or downgraded are mapped back to their original forms and features. For example, if an Advantage series policy was upgraded to a Gold Select series policy, it will be treated as an Advantage policy. Preferably, exposure should reflect the two product series and policy figures accordingly. However, it is too complex technically to do for this study, and a replaced policy is mapped to its original policy characteristics.

When a Group policyholder has more than one policy issued, the policies under the same policyholder are consolidated and the original policy features are used.

Closed and Reopen Claims
If a claim began less than 180 days since a prior claim on the same policy, the two claims are consolidated into one. The minimum incurral date, minimum EP met date and maximum last date of service are assigned for the consolidated claim. LifePro closes inactive claims more frequently than other systems, and this leads to many new claims being open. The process to consolidate claims that incur less than 180 days apart reduces claim counts and increase claim continuance and salvage.

Claim without Invoice Submission/Recording
We have a number of claims for which we have no bills recorded in our systems. We chose to include these as claims, since claims operations indicated that the person had met the benefit trigger. However, we have no valid claim incurral date nor do we have a last incurred date of paid services for these claims. For JH retail and Fortis, we chose to define the incurral date as the notification date minus 2 months for these claims. We defined the last Date Of Service as the notification date minus two months plus 1 day. Group LTC has different claim triggers, and claims typically only end when actually processed as a termination, so we used the same incurral date definition, but the processed termination date for these claims.

Note that past studies included only "EP met" claims, i.e. claims where non-EP claim dollars were paid, so claims of this type were not part of the study.

Removal of Claims and On-claim Exposure Due to Data Reliability Issues
Incurral Year 2011 claims and on-claim exposure for JH Retail are removed from the continuance analysis due to lack of reliability of the claim information entered into the payments table. Fortis has the first 5 months of claim and on-claim exposure removed for incurral years less than 2003 from the continuance study. Group has the first 5 months of claim and on-claim exposure removed for incurral years less than 2000 from the continuance study.

Group Policies with Zero Payments
Prior studies excluded claims with $0 payments, ie claims where the only benefit paid was waiver of premium were not included. The 2013 study includes this type of claims. These can be claims with no invoices submitted, but also ones with invoices with only EP days credited, but then with an extended period of premium waiver.

Dimensions for Analysis

This section describes the dimension chosen, the reasons for the selection of dimensions and the grouping used and reason for groups. Note that a dimension is defined here as anything that affects long term care morbidity. Note that the term 'attribute' will at times be used interchangeably for this term.

A mix of customer, product and operational dimensions were used. Customer (demographic) dimensions include items such as age and sex. Product dimensions are those such as benefit periods

and benefit triggers. Operational dimensions include items such as underwriting method or material claim administration practices.

Key dimensions for long term care morbidity are the following: attained age, issue age, gender, underwriting, selection/anti-selection and wear-off, benefit period, elimination period, inflation of benefits, calendar year of incurral (captures environmental and other trends), issue year (captures underwriting era difference), coverage types, trigger differences, rider presence, risk class and marital status at issue. These last two are not known for group experience. For Group, guaranteed issue coverage and clients covered are two additional important attributes.

There are also important dimensions such as wealth, educational level and medical technology changes for which information is lacking. Also, several dimensions are excluded in the study due to non-materiality on the results, or an expectation of no major change in the existing expected assumptions. One example is agent/agencies. Also not directly studied here are the dimensions of site of care and diagnosis. These two dimensions are studied, but have no direct bearing on active life reserves, and also no direct bearing on disabled life reserves under our current methodology.

Observed Experience Overview

Major Observations

JH Retail

- Overall claim experience has been unfavorable. This is primarily a result of higher claim incidence rates (somewhat offset by higher earlier claim terminations), lower later claim terminations and less salvage than expected.
- Milliman selection factors introduced in 2010 show some trends
- Claim termination experience for claim years 2+ for claim ages 90+ appear unfavorable
- Incidence and claim terminations by Benefit Period show trends
- Claim termination experience for Custom Care and later is unfavorable
- Claim termination experience for Married lives(Both M1 and M2) is favorable

Fortis

- Overall claim experience has been very unfavorable
- Comprehensive vs. Stand-Alone Coverage types show significant differences
- Ultimate 4060+ product series incidence experience is unfavorable
- Claim terminations experience by product series (<4060 vs. 4060+) shows differences
- Milliman selection factors introduced in 2010 show some trends
- Incidence and claim terminations by Benefit Period show trends
- Favorable DLR salvage experience due to addition of more 4060+ claims

Group

- Overall claim experience does not have notable changes
- Very unfavorable claim termination experience is offset by very favorable salvage experience
- Issue year 2000+ incidence experience does not show as favorable results as expected
- Favorable DLR Salvage experience, comparable to ALR

These are discussed in much more detail in the sections that follow.

Modeling Overview

An iterative approach was used to fit new modifiers to the existing expected assumptions. For refitting incidence, we used duration 10+ data where possible, with the view that duration 10+ is a reasonable proxy for ultimate experience. We used all durations' data where we lacked sufficient duration 10+ data. (In general, any fit related to Custom Care and later, but also younger attained ages and IY 2000+ for GI.) For continuance, we fit on all durations from issue, as select/ultimate effects are not as pronounced for claim terminations. For salvage, we used all durations' data, but, excluded claim data from 2010 and 2011 incurrals for JH Retail.

We used the A/E ratios as the modifiers for each chosen dimension. Once we had cycled through all of the chosen dimensions, we reviewed the fit across all of the dimensions. As a general rule, if the |standard errors| (SE) were < 1.64, we stopped. (A SE of 1.64 is consistent with our corporate standard on credibility.) If not, we cycled through the assumptions again, applying the residual A/E ratios to the modifiers and continuing until our criteria was met. This approach has many similarities to a more technical regression approach. This modeling was done in EXCEL. This approach was used for incidence and continuance, but not for salvage, due to limitations in what could be coded into the valuation system for salvage changes.

We also used regression models as a secondary approach. However, this involved the use of new (MATLAB) software, and given our unfamiliarity with it, we did not use this as our primary tool. Regression results were fairly close to the less technical approach actually used.

The actual iterative steps will not be shown, just the final fit. There are many interactive effects, some having important effects. The standard errors will not be shown, but if the final solution is outside of the standard error bounds, it will be discussed.

The main body of this document covers the major adjustments to be made to morbidity assumptions for active life reserves. Disabled life reserve changes are covered in Appendix 4. Items that were studied separately from the main study are covered in the Appendix 5- "Other Analyses". Also, this document does not cover the existing expected incidence, claim termination and salvage rates, just the proposed adjustments to these rates. Some of the adjustments will be expressed as "apply the adjustment to the existing table", and at other times as "replace the existing table with the following new table".

JH Retail – Observed Experience and Justification of Recommendation

This section and the two that follow show the experience before and after the recommended 2013 Basis Change elements. "A/e" and "original a/e" ratios will refer to experience prior to any recommended changes. The "A/E new" or "A/E revised" ratios refer to a/es using revised expected values which include all recommended changes except for some minor ones which can be found in the "Other Analyses" appendix.

Also, not all of the recommended adjustment factors are shown in the next 3 sections. For example, only selected attained age adjustments are shown, not all of the interpolated values. If a complete description of the recommended 2013 Basis Changes is desired, see Appendices 1, 2 & 3.

JH Retail Incidence

Issue Age - Incidence

With our 2010 study, we introduced industry based selection factors from a study done by Milliman. These selection factors vary by issue age (IA) with differing ultimate levels. The 1st year selection factor is typically about 35% wearing off over 9 durations for most issue ages. The ultimate levels used were as follows:

IA ultimate Chart

Issue Age band	Relative ultimate values
<48	1.00
48-54	1.00
55-59	1.00
60-64	1.00
65-69	1.10
70-74	1.15
75-79	1.20
80+	1.35

Milliman set these factors using data at the point at which the Elimination Period was met. With some small modifications, these issue age based selection factors fit our data reasonably well in the 2010 study.

Current emerging experience has been somewhat unfavorable. Below is a table which shows experience both at EP Met as well as EP Start (Incurral).

Inception through 9/30/2012 data				
	Durations from issue 10+			
	Claims at EP met		Claims at Incurral	
IA band	Actual	A/E	Actual	A/E
<48	18	130%	23	142%
48-54	156	106%	213	120%
55-59	553	102%	780	116%
60-64	2,370	108%	3,209	118%
65-69	5,417	102%	6,967	105%
70-74	6,119	103%	7,612	101%
75-79	3,387	104%	4,121	98%
80+	517	91%	655	88%
total	18,535	103.4%	23,581	103.9%

The chart above shows that on an incidence at EP met basis, this emergence has been fairly level across all issue ages. However, the current study's focus is on incidence at incurral, not at the EP met point. In total, the result is similar, but the by-issue age results are very different. For example, the EP met A/E for issue ages 55-59 is 102%, but is 116% at the point of incurral. This implies different actual claim termination patterns relative to expectations by issue age, and for issue ages 55-59, it implies much higher claim terminations than expected.

The following chart repeats the above incidence at incurral data, and adds claim termination data in the 1st 5 months from incurral (the 1st 5 months from incurral are an extremely good proxy for the EP period). This shows explicitly the higher claim terminations by issue age during the EP. Also brought in here are the recommended new Basis Change factors. Again note that the "a/e revised" is not just the recommended change in this section, but includes all recommended changes.

Inception through 9/30/2012 data					Inception through 9/30/2011 data			
	Dur's fr issue 10+				All dur's fr issue			
	Claims at Incurral				Clm Terms, 1st 5			
IA band	Actual	A/E original	A/E revised	New factor	Actual	A/E original	A/E revised	New factor
<48	23	142%	100.1%	100.0%	24	127%	84.7%	112.0%
48-54	213	120%	96.5%	100.0%	150	174%	108.6%	112.0%
55-59	780	116%	100.0%	105.1%	475	176%	108.3%	112.0%
60-64	3,209	118%	100.0%	111.1%	1276	148%	100.0%	112.0%
65-69	6,967	105%	100.0%	100.7%	2235	116%	100.0%	100.6%
70-74	7,612	101%	100.0%	97.0%	2343	91%	100.0%	86.1%
75-79	4,121	98%	100.4%	97.0%	1609	80%	100.0%	78.7%
80+	655	88%	102.4%	90.4%	447	69%	100.0%	66.9%
total	23,581	103.9%	100.1%		8,559	102%	100.5%	

"New factors" are the adjustment factors that are to be applied to the existing expected assumptions. For example, the "new factor" for Issue age band 80+ is 0.904. The existing relative expected ultimate experience factor is 1.35 (from IA Ultimate chart above), the new relative value is 1.22 for these ages.

This experience resulted in a recommendation to revise the "Issue Age Band Selection Factors" and to also introduce Issue Age related claim termination rates (both shown above).

Much of the high A/E incidence experience at younger ages is attributable more to attained age than to issue age. However, we still recommend significant increases to incidence at issue age bands 55-59 and 60-64. We also recommend issue age claim termination factors that are to be applied in the 1st 5 months on claim. The data indicated that the <60 issue age claim termination rates could be set to a much higher value, but we chose to maintain some conservatism given the small volume of claim terminations from these issue age bands, hence the less than optimal fit at issue ages <60.

The "new factors" above for incidence are the ultimate updates to the Issue Age Selection Factors. However, we actually refit on all durations for this attribute and are recommending incidence modifications for durations 1-9 and 10+. Since early duration experience is not a primary driver of reserve levels nor of pricing, the before and after results will not be shown here. (See appendix 1 for tables of all current and proposed replacement select and ultimate durational issue age factors.)

Attained Age - Incidence

Duration 10+ attained age (AA) experience is quite limited at attained ages <65. We included data from durations 1-9 for assumption refitting for these younger attained ages.

Inception through 9/30/2012 data					Inception through 9/30/2011 data		
	All durations from issue		Durations from issue 10+			All durations from issue	
	Claims at Incurral		Claims at Incurral			Claim Terminations, 1st 5 months on claim	
AA band	Actual	A/E	Actual	A/E	AA band	Actual	A/E
40-59	526	151%	34	174%			
60-64	1,103	139%	108	115%			
65-69	2,863	111%	508	116%	40-69	1400	159%
70-74	6,464	102%	1,986	115%	70-74	1512	126%
75-79	11,704	98%	5,194	105%	75-79	2207	102%
80-84	14,183	98%	8,134	105%	80-84	2211	87%
85-89	8,494	95%	5,903	99%	85-89	1033	75%
90-94	1,848	96%	1,626	98%	90+	197	86%
95+	87	97%	87	97%			
total	47,271	99.7%	23,580	103.9%	total	8560	102%

Here, the somewhat negative/positive incidence experience at the youngest/oldest ages is somewhat offset by the 1st 5 months on-claim termination experience. For example, the a/e at attained ages 70-74 is 115% for durations 10+, but the a/e for claim terminations in the 1st 5 months are 126%. 26% higher claim terminations over this period translates into about a 7% shorter average length of stay, so the a/e at the end of the EP would be approximately 108%. In other words, a/e experience at the EP met point would be closer to 100% at all attained ages, and much of the patterns observed above are due to using a single aggregate set of expected claim termination rates by attained age, and emerge due to now studying experience at the incurral point, rather than at the EP met point.

We are resetting experience to be appropriate at incurral, so we recommend resetting the attained incidence rates and also resetting the claim termination rates to vary at all durations, not just after the 1st 5 months on claim. The recommended adjustment factors for incidence can be found in the next table.

Incidence at incurral data:

Inception through 9/30/2012 data							
	All durations from issue			Durations from issue 10+			
	Claims at Incurral						
AA band	Actual	A/E	A/E revised	Actual	A/E	A/E revised	New factor
40-59	526	151%	100.4%	34	174%	121%	1.520
60-64	1,103	139%	100.1%	108	115%	86%	1.421
65-69	2,863	111%	97.9%	508	116%	98%	1.133
70-74	6,464	102%	97.8%	1,986	115%	98%	1.106
75-79	11,704	98%	100.8%	5,194	105%	99%	1.025
80-84	14,183	98%	100.2%	8,134	105%	101%	1.079
85-89	8,494	95%	100.6%	5,903	99%	101%	1.019
90-94	1,848	96%	102.3%	1,626	98%	103%	1.064
95+	87	97%	109.0%	87	97%	109%	1.064
total	47,271	99.7%		23,580	103.9%	100.1%	

Again, this is only a portion of the new factors- we developed new factors for every attained age. The factor shown is for the 1st age in the attained age band, but, the A/E ratio is for the entire band. The new factors <u>increase</u> incidence at all attained ages, despite favorable a/e ratios at prior to revision at high attained ages. This is due to interactive effects with other assumptions.

The fit at ages 90+ appears weak. This is a result of the iterative process- after fitting on another attribute, the fit at 90+ became worse. However, these values are well within our SE limit. Also, while a better fit is certainly possible for this attribute, it would come at the expense of the fit on other attributes.

Claim terminations within the 1st 5 months from incurral data:

Inception through 9/30/2011 data				
	All dur's fr issue			
	Clm Terms, 1st 5			
IC age band	Actual	A/E orig	A/E revised	New factor
40-69	1400	159%	97%	1.505
70-74	1512	126%	100%	1.218
75-79	2207	102%	102%	1.056
80-84	2211	87%	102%	0.996
85-89	1033	75%	100%	0.936
90+	197	86%	99%	1.162
total	8560	102%	100.5%	

Claim terminations during the 1st 5 months from incurral vary significantly by incurral age. The recommendation is to update the claim termination rates to reflect incurral age differences.

Benefit Period and Product Series - Incidence

Underlying expected values vary by "less than 10 year BPs" vs. 10+, with ultimate factors of 1.00/1.25 for <10/10+ BPs. The Advantage 5 year base plan uses the 10+ year BP loads as Advantage is a 2 pool product, and "5" is typically "5+5". Advantage is grouped separately from Gold & Similar (GS). Custom Care & later (CC+) was originally grouped with GS in this 2013 study due to the low volume of claims experience for durations 10+ with that block. However, the GS block also has a very low volume of claims experience for the 5 year BP plan, so CC+ factors for BP were revised and smoothed to account for this lack of experience for the 5 year BP.

The data below indicates a need for factors that vary by all BPs, not just <=10 vs. 10+.

		Durations from issue 10+			
		Claims at Incurral			
Product	Base BP	Actual	A/E orig	A/E new	new factor
Advantage	1/2	2,148	106%	100%	1.043
Advantage	3	4,659	114%	100%	1.100
Advantage	5	2,698	94%	100%	0.886
Advantage	Lifetime	1,675	106%	100%	0.991
Advantage	total	11,179	105.7%	100.1%	
Gold & similar	1/2	1,351	86%	100%	0.841
Gold & similar	3	2,687	99%	100%	0.974
Gold & similar	4	3,754	108%	100%	1.025
Gold & similar	5	23	105%	111%	0.913
Gold & similar	6	2,195	112%	100%	1.056
Gold & similar	10	203	93%	100%	0.890
Gold & similar	Lifetime	1,794	105%	101%	0.991
Gold & similar	total	12,007	102.8%	100.3%	
Custom Care & later	1/2	39	78%	97%	0.830
Custom Care & later	3	145	92%	96%	0.960
Custom Care & later	4	79	98%	94%	1.010
Custom Care & later	5	33	90%	84%	1.026
Custom Care & later	6	24	101%	93%	1.041
Custom Care & later	10	10	103%	120%	0.878
Custom Care & later	Lifetime	64	97%	93%	0.977
Custom Care & later	total	395	92.7%	94.5%	

In general, we recommend an increase to Advantage incurral incidence across all BPs, but a decrease to the 5 year BP incidence rates within the Advantage series. GS overall also increases along with a generally increasing set of factors recommended to be applied to by BP. CC+ generally follows GS, since it was grouped with GS due to its low volume of claims and based on the belief that GS BP patterns are applicable to CC+.

The overall A/E for CC+ is 94.5% for durations 10+ after recommended adjustments. However, for durations 10+, this is not statistically significant.
For the 1st 5 month period claim termination offset, we chose to keep the structure somewhat simpler, with the data and adjustments grouped by product and by BP separately.

	Inception through 9/30/2011 data			
	All durations from issue			
	Claim Terms, 1st 5 mos			
Product	Actual	A/E orig	A/E new	New factors
Adv	2785	94%	101.2%	94.2%
GS	4363	107%	100.6%	108.2%
CC+	1412	104%	99.0%	90.2%

Claim terminations in the 1st 5 months for Advantage are understated, while they are overstated for GS. The CC+ relationship is less clear cut due to interactions with other assumptions. We recommend decreases to the 1st 5 month claim terminations for the Advantage & CC+ series, and increases for GS.

	All durations from issue			
	Claim Terminations, 1st 5 months on claim			
BP	Actual	A/E orig	A/E new	New factors
1	3	132%	163%	108%
2	1228	96%	101%	108%
3	2788	96%	101%	102%
4	1568	113%	100%	102%
5	863	107%	102%	99%*
6	875	112%	100%	95%
10	117	104%	99%	88%
LifeTime	1118	100%	100%	87%
***Adv & GS use 105% for BP 5 Adjustment factor**				

Recommendations are to increase claim terminations for short BPs and decrease them for longer BPs. The 1 year BP uses the 2 year assumption, as there is too little data to use directly. The recommended factors do not follow the pre-adjustment a/es pattern due to interactive effects.

Risk Class - Incidence

Current underlying ultimate risk class expectations for all products are as follows:

Risk Class	Factor
Preferred	80%
Standard	100%
Substd 1	160%
Substd 2	174%

In other words, a person issued with a preferred rating is expected to have 20% better morbidity at all ultimate durations relative to a person issued with a standard rating.

The next chart shows experience by risk class. It has been better than expected over all durations with credible data for the preferred class, both at the point of incurral, and over the course of the 1st 5 months on claim. Substandard CC+ business also has had better than expected experience for Custom

Care and later products which is likely related to changes in underwriting that were made concurrently with the introduction of the Custom Care product.

	Inception through 9/30/2012 data				Incept'n thru 9/30/2011 data	
	All durations from issue		Durations from issue 10+		All durations from issue	
	Claims at Incurral		Claims at Incurral		Claim Terminations, 1st 5	
Risk Class	Actual	A/E	Actual	A/E	Actual	A/E
Preferred	4,665	92.9%	1,777	89.1%	857	114%
Standard	38,124	101.1%	20,129	105.4%	6769	99%
Substd1 not CC+	3,037	102.4%	1,433	105.0%	599	112%
Substd1 CC+	784	75.1%	42	95.1%	166	104%
Substd2 not CC+	458	111.6%	193	108.4%	118	148%
Substd2 CC+	204	86.3%	6	76.4%	51	110%

The table below shows how well the incidence was refit. There are no recommended changes to the 1st 5 months claim terminations for risk class.

Inception through 9/30/2012 data						
	All durs fr issue			Durs fr iss 10+		
	Claims at Incurral					
Risk Class	Actual	A/E orig	A/E new	Actual	A/E orig	A/E new
Preferred	4,665	92.9%	98.8%	1,777	89.1%	96%
Standard	38,124	101.1%	99.9%	20,129	105.4%	100%
Substd1 not CC+	3,037	102.4%	103.2%	1,433	105.0%	101%
Substd1 CC+	784	75.1%	97.5%	42	95.1%	117%
Substd2 not CC+	458	111.6%	110.9%	193	108.4%	102%
Substd2 CC+	204	86.3%	97.2%	6	76.4%	82%

Not shown above are the recommended adjustment factors. For preferred business, the following shows the recommended changes at selected durations from issue:

	Selected durations from issue				
	1	5	10	15	20+
Prior factors	55%	70%	79%	80%	80%
New factors	60%	64%	66%	72%	80%

These factors recognize the very good preferred experience over the experience period, but preserve the ultimate prior expected value of 80%. The CC+ substandard adjustment factors are 0.80 for substandard I and 0.90 for substandard II, moving CC+ ultimate values from 160%/174% to 128%/156%, for substandard I/II respectively.

Also, for products preceding Custom Care, the substandard 1&2s' SEs are outside of our limit. This is because Adv and GS were grouped together for fitting purposes, but have very different substandard experience (not shown in the chart above- it's grouped there). Since these are fairly small blocks of closed business, we chose to keep the assumption simple, and not subdivide this category.

Marital - Incidence

Underlying marital expectations have married/M1 lives at about 60% of the morbidity of single lives at duration 1 from issue, and "M2" has even lower expectations (both with significant wear-off over the life of the business). ("M1" is married, 1 of 2 applying or placed; "M2" is married, both applying or placed.) The experience below suggests more convergence than expected.

	Inception through 9/30/2012 data							Incept'n thru 9/30/2011 data			
	All durs fr issue			Durs fr iss 10+				All durs from issue			
	Claims at Incurral			Claims at Incurral				Clm Terms, 1st 5 mos			
Marital status at issue	Actual	A/E orig	A/E new	Actual	A/E org	A/E new	New factors	Actual	A/E org	A/E new	New factors
Single	19,431	94%	101%	9,117	97%	100%	0.92	3254	89%	100.7%	93.9%
Adv& GS Married & CC+ "Married 1"	24,893	105%	99%	14,251	109%	100%	1.06	4585	110%	99.8%	113.7%
CC+ "Married 2"	2,948	103%	100%	213	96%	94%	1.08	721	127%	100.5%	103.0%

Note that the "M2" category has a low volume of claims information in durations 10+. Because of this, all durations experience was used in fitting the M2 class.

The low/high A/E ratios for the claim terminations in the 1st 5 months on claim for the single/marital classes caused a refit of claim terminations during the EP. Adjustments are shown above.

Marital and product claim terminations are highly inter-related. Part of the reason for the favorable positive experience for CC+ is that a higher proportion of lives are married, and most fall within the "M2" category.

Single lives incidence morbidity assumptions at all durations from issue are recommended to be reduced (.92 factor) while married lives assumptions are recommended to be increased (1.06 and 1.08 factors). By about attained age 90, the married/M1 rates exceed the single rates, which we believe is inappropriate. We reset the "marital frailty factors" so that the married/M1 rates are capped at rates close to the single rates. (This is outside of the experience period, so no further details will be given here. See the Other Analyses appendix for more details.)

Gender – Incidence

With the exception of one very recent product, we currently have no gender distinct morbidity assumptions for pricing or valuation.

	Inception through 9/30/2012 data				Incept'n thru 9/30/2011 data			
	Durations from issue 10+				All durations from issue			
	Claims at Incurral				Clm Terms, 1st 5 mos on clm			
Gender	Actual	A/E orig	A/E new	New factors	Actual	A/E orig	A/E new	New factors
Male	8,467	98%	99.8%	0.92	3405	116%	100.5%	1.10
Female	15,113	108%	100.3%	1.05	5155	95%	100.5%	0.94

We are recommending the above factors for incurral incidence and claim terminations in the 1st 5 months on claim.

Global experience for 1st 5 months on claim

In addition to fitting on the attributes above, there was a recommended duration on claim adjustment factor that reshaped the continuance curves. Part of this was a factor covering the 1st 5 months on claim and is shown below.

time on clm	Actual	A/e new	Factor
1-5	8560	100.5%	1.020

Therefore we are recommending that claim terminations in the 1st 5 months be increased by an additional global factor of 1.02

JH Retail Claim Terminations

"Actual" in this section is the count of actual claim terminations 6+ months on claim. All data is from inception through 9/30/2011 in this section.

Global experience for shape of claim termination curve

time on clm	Actual	A/E orig	A/E new	New factor
6-12 months	4,591	103.0%	99.4%	1.013
2+3 years	6,889	95.3%	99.1%	0.952
4+ years	3,659	99.5%	99.3%	1.019
total (6+ mos)	15,139	98.5%	99.2%	

Experience showed a need for a slight reshaping of the curves, which the recommended new factors above accomplish.

Incurral Age Band (Attained Age) – Claim Terminations

Incurral Age Band	Actual	A/E orig	A/E new	New factor
50-69	1,461	94%	98.7%	0.944
70-74	2,335	100%	100.3%	1.000
75-79	4,102	100%	100.3%	1.014
80-84	4,531	100%	100.0%	1.030
85-89	2,345	97%	98.6%	1.000
90+	365	81%	81.2%	1.000

We analyzed attained ages 90+ in considerable detail and ultimately are recommending no change at this time, despite the very unfavorable a/e of 81%. This is because most of the claim terminations in the 90+ incurral age band are at attained ages 90 & 91, while the band is 90+. Since claim termination rates are expected to increase rapidly by attained age throughout this band, we believe it is premature to revise this entire band for data that is only in the early 90s.

Had we refit at attained ages 90+, the overall A/E would have been 99.7%. With this recommendation, the overall A/E becomes 99.2%.

Issue Age Band – Claim Terminations

Issue Age	Actual	A/E orig	A/E new	New factor
<48	23	62%	71%	1.046
48-54	129	96%	100%	1.046
55-59	403	97%	100%	1.052
60-64	1,428	99%	100%	1.026
65-69	3,395	99%	100%	0.987
70-74	4,863	101%	100%	1.005
75-79	3,774	97%	99%	0.988
80+	1,124	94%	96%	1.012

Claim termination rates vary somewhat by issue age (especially ages <60 and at ages 75+), but at most ages the pattern is fairly level.

Product grouping – Claim Termination

One of the changes made in 2010 was to introduce product-specific claim termination rates for CC+. The experience up to 2010 had been very favorable for CC+, but has since been unfavorable.

Product	Actual	A/E orig	A/E new	New factor
Adv	6,386	99%	99%	1.001
Gold	7,615	101%	100%	1.030
CC+	1,138	85%	98%	0.838

In the 2010 study, we substantially increased CC+ claim termination rates. Much of this is attributable to married lives having higher claim terminations, especially the “M2” lives. Also, emerging experience

at later durations on claim has been unfavorable. We are recommending resetting the product specific factors per the chart above and developing claim termination modifiers that vary by marital status.

Marital – Claim Terminations

Marital claim terminations and product claim terminations are inter-related. Part of the reason for the favorable positive experience for CC+ is that a higher proportion of lives are married, and most fall within the "M2" category.

Marital	Actual	A/E orig	A/E new	New factor
Single	6,628	90%	100%	0.959
Adv/GS Married, CC+ M1	8,003	107%	99%	1.035
CC+ M2	508	100%	99%	1.175

We are recommending the factors above for application to claim terminations in months 6+ on claim.

Gender – Claim Terminations

There are very large differences in experience by gender.

gender	Actual	A/E orig	A/E new	New factor
Male	6,034	130%	99.3%	1.290
Female	9,105	85%	99.2%	0.867

We recommend reflection of the large differences between male and female claim terminations.

Benefit Period – Claim Terminations

The expected claim termination rates in current use for the 10+ year BPs are about 4% lower than the <10 year BPs. Once this is considered, there appear to be slightly lower claim terminations with increasing BP.

Benefit Period	Actual	A/E orig	A/E new	New factor
1	4	219%	200%	1.104
2	2,351	109%	99%	1.104
3	5,133	96%	99%	0.987
4	2,348	99%	100%	0.973
5	1,613	102%	99%	0.943*
6	1,376	92%	100%	0.912
10	205	109%	100%	1.147
LifeTime	2,109	95%	99%	0.967
***Adv & GS use 1.056 for the BP 5 Adjustment factor**				

We recommend introduction of BP specific claim termination modifier factors.

Duration from issue – Claim Terminations

Duration from issue of incurral	Actual	A/E orig	A/E new	New factor
1	357	99%	102.3%	na
2	590	97%	100.7%	na
3	870	96%	100.2%	na
4	1,040	99%	102.9%	na
5	1,266	97%	98.4%	na
6	1,411	99%	99.8%	na
7	1,440	101%	101.9%	na
8	1,474	97%	97.6%	na
9	1,422	97%	96.8%	na
10	1,309	104%	104.0%	na
11	1,154	98%	96.3%	na
12	958	103%	101.5%	na
13	676	96%	94.3%	na
14	498	96%	95.3%	na
15	314	99%	98.1%	na
16	199	95%	95.7%	na
17	105	98%	98.5%	na

Experience by duration showed no strong trend. We are not recommending claim termination modifiers that vary by duration from issue.

JH Retail Salvage

For JH retail, salvage on claim has a typical pattern of worsening over the 1st 2 years on claim, and then stabilizing. To create a reasonably mature block of data, we removed 2010 & 2011 claim incurrals (2012 was already removed by study design). Therefore, no claim is less than 2.75 years old in the study. Data shown is from inception through 9/30/2011. (Incurral years 2010+ are removed, but not salvage data in 2010+ related to incurrals prior to 2010.)

For purposes of matching to expectations, all payments are mapped back to the year of incurral. Also, Incurral (IC) year is formed using issue year and duration from issue data, and is not a direct measure of the actual incurral year by date.

Incurral Year – Salvage

Attribute	Item	Actual pd (ms)	A/E orig	A/E new
IC year	<2010	1,959	102.4%	100.0%
IC year	2010 & 2011	121	94.7%	92.9%

Again, the 2010 & 2011 experience above is removed for the salvage study. This moved the starting point a/e from 101.9% to 102.4%.

Key attributes: Inflation & Marital - Salvage

Inflation type is the key driver of future salvage levels. Current experience is very unfavorable by inflation type.

Marital status shows considerable variability; adjustment factors were brought into the refit models as follows for marital status and inflation type:

Attribute	Item	Actual pd (ms)	A/E orig	A/E new	New factors
Total	Total	1,964	102.4%	100.0%	
Inflation	None/GPO	1,249	101.0%	99.8%	1.010
Inflation	Simple	453	104.6%	100.3%	1.046
Inflation	Compound	262	105.3%	100.3%	1.053

Attribute	Item	Actual pd (ms)	A/E orig	A/E new	New fitting factors
Marital	Single	992	104.8%	100.0%	1.024
Marital	Adv/GS Married, M1	925	100.4%	100.0%	0.980
Marital	CC+ M2	47	94.6%	100.0%	0.914

The marital factors in the above chart were used for refitting, but are not the recommended final adjustment factors. The JH retail salvage charts that follow use the "new factors" from the chart above. The following are the final recommended factors:

Marital issue status	Recommended Factor
Single	102.4%
Adv/GS Married, M1	99.6%
CC+ M2	95.2%

These assume a certain amount of trending of the marital experience toward the single experience, and this is expected to occur mostly outside of the observed experience period. Ideally, we would create duration from issue salvage factors, but our AXIS valuation model can handle only a very limited number of salvage modifications. For this reason, we also have limited the number of attributes with recommended modifiers.

Other attributes: Product, Risk class, and Benefit Period

Attribute	Item	Actual pd (ms)	A/E orig	A/E new
Product	Adv	825	103.7%	101.0%
Product	GS	1,006	102.1%	99.7%
Product	CC+	133.1	96.9%	96.6%
Risk class	Preferred	160	103.8%	101.6%
Risk class	Standard	1,640	102.8%	100.4%
Risk class	Sub 1	143	97.5%	95.2%
Risk class	Sub 2	21	96.3%	93.9%
BP	2	213	100.5%	98.5%
BP	3	627	99.7%	97.2%
BP	4	295	102.2%	100.2%
BP	5	229	105.0%	102.6%
BP	6	197	103.0%	100.6%
BP	10	31	103.4%	100.8%
BP	30	371	106.6%	103.9%

Salvage has been unfavorable for older products. Some of this may be due to an emphasis on sales of larger Maximum Daily Benefit coverage amounts with more recently issued policies.

Risk class results show less favorable salvage experience relative to better risk classes. This seems counter-intuitive. It has not been explored further.

Results by Benefit Period show increasingly less favorable salvage with increasing BPs.

Other attributes: Elimination Period & Maximum Daily Benefit

Attribute	Item	Actual pd (ms)	A/E orig	A/E new
EP	20	202	100.7%	98.0%
EP	30	11	94.3%	92.6%
EP	60	100	102.5%	99.9%
EP	90	118	98.5%	98.0%
EP	100	1,435	102.9%	100.4%
EP	180	95	103.9%	101.8%
MDB	lt100	277	113.7%	111.2%
MDB	100-199	1,456	103.5%	101.1%
MDB	200-299	213	86.7%	84.6%
MDB	300-399	16	78.8%	77.4%
MDB	400+	2	92.7%	93.7%

Results by Elimination Period show significant variability. However, this is mostly product related, since 30 and 90 day EPs are almost entirely Custom Care and later business.

Results by Maximum Daily Benefit (grouped by amount chosen at issue) also show great variability, with higher MDBs having much more favorable salvage. We do not have different expectations for this, nor do we plan on introducing any.

Other attributes: Incurral Age & Gender

Attribute	Item	Actual pd (ms)	A/E orig	A/E new
IC age	<70	142	98.0%	95.4%
IC age	70-74	182	101.4%	98.7%
IC age	75-79	456	102.0%	99.6%
IC age	80-84	640	103.8%	101.5%
IC age	85-89	433	102.9%	100.6%
IC age	90+	111	101.7%	99.2%
Gender	Female	1,382	103.1%	100.3%
Gender	Male	582	100.9%	99.4%

Older ages and females show marginally unfavorable salvage a/es.

Fortis – Observed Experience and Justification of Recommendation

In the prior study, the incidence assumptions were based on the point at which the EP was met. The incidence assumptions in this study are based on the point of incurral. For the discussion of incidence, we have included both claim incurrals as well as claim terminations during the EP period. This means that claim incidence and terminations during the EP are considered as incidence. This approach keeps the two studies consistent. "Incidence, Durations 10+" in the charts below is always incidence at incurral.

Fortis Incidence

Attained Age

	Incidence, Durations 10+				Claim Terms, 1st 5 mos.			
Attained age	Actual Count	A/E orig.	Adj factor	A/E new	Actual Count	A/E orig.	Adj factor	A/E new
lt70	451	111%	none	103%	493	201%	2.18	100%
70-74	1,145	104%	none	98%	677	135%	1.41	101%
75-79	3,114	104%	none	98%	1,214	112%	1.13	100%
80-84	4,748	104%	none	99%	1,474	97%	0.96	100%
85-89	3,895	107%	none	103%	941	79%	0.76	100%
90+	1,975	104%	none	104%	445	73%	0.69	100%
Total	15,328	105%	none	100%	5,244	102%	na	100%

Since the observed experience showed little variation by attained age for incurral incidence, we recommend no changes to the attained age incidence rates. After bringing in all suggested changes, the fit above by attained age for incidence appears to show a poor fit. However, high ages are made up of a high percentage of HHC only claims, and we chose not to fit on coverage type fully across all durations from issue. Had we done so, the high age a/es would be close to 100%. The Fortis Coverage Type section discusses this in more detail. We believe the attained age incidence rates do not need further adjustment.

Claim terminations during the 1st 5 months on claim show a strong trend by attained age, and we recommend the multipliers shown above for months 1-5 on claim.

Product Series- Incidence

Fortis experience is grouped into "pre-4060" and "4060+" blocks. Pre-4060 forms were issued up to about 1997, while 4060+ was issued in later periods. Pre-4060 forms were underwritten more loosely and have different benefits than 4060+ forms. Expected assumptions have lower ultimate experience for the 4060+ block relative to the pre-4060 block.

Emerging experience in the 4060+ has been unfavorable for incidence at incurral. The difference in claim terminations in the 1st 5 month by product series is not sufficient to offset this.

	Incidence, Durations 10+				Claim Terms, 1st 5 mos.			
Product Series	Actual count	A/E orig.	Adj Factor*	A/E New	Actual Claim Terms 1-5	A/E orig.	Adj Factor	A/E New
Pre - 4060	10,512	102%	1.000	100%	3,252	101%	1.030	100%
4060+	4,817	112%	1.104	100%	1,992	103%	0.955	99%

***4060+ incidence recommendations are by duration, 110.4% was the ultimate adjustment**

We refit the 4060+ experience to better reflect the different select and ultimate experience for that form group. A/e experience for the 4060+ forms has been much better than expected through about the 1st 9 durations from issue, but has been worse than expected for durations 11+. We recommend 4060+ adjustment factors that vary by duration from issue, with an ultimate factor of 1.104. (Not shown here, nor is there any reserve impact as all Fortis business is 10+ years old)

Current expected claim terminations in the 1st 5 months from issue do not differ by product series. The experience indicates a need for variation by series. We recommend the factors in the above table to account for this.

A small subcategory of the <4060 product series is the 900 series which makes up 5% of past claims, but less than 3% of future claims. It is the oldest Fortis business and has restrictive benefits, and good A/E experience for incidence. We recommend an incidence factor of 0.80 be applied for this business.

	Incidence		
	Incidence adj factor	Actual claims Dur 10+	A/E New Dur 10+
900 series	80%	851	90%

The experience appears to be trending towards 100%, so use of a factor that reflects all of the past good A/E experience is not recommended.

Coverage Type- Incidence

Expected assumptions currently do not vary by coverage type. However, experience shows considerable variation by coverage type. This should be recognized, as the coverage type mix has been rapidly changing as the facility only (NH only) and HHC only types of coverage were sold at earlier issue years and typically to older individuals. As these people die, the mix shifts to a higher percent of comprehensive policies.

The high incidence relative to expectations by HHC only policyholders followed by high claim terminations is notable. It continues beyond the 1st 5 month on claim into later periods. It may be due to the coverage being used for acute care.

	Incidence, durations 10+				Claim Terminations, 1st 5 mos.			
Coverage Type	Actual Cts	A/E original	Adj factor	A/E revised	Actual Cts	A/E original	Adj factor	A/E revised
LTC	8,471	109%	1.12	99%	3,043	102%	0.950	100%
NH Only	4,383	84%	0.84	99%	1,122	76%	0.825	100%
HHC Only	2,475	147%	1.32	107%	1,079	155%	1.620	99%

Factors are recommended to account for the difference in experience by coverage type, both for incidence at incurral and for claim terminations in the 1st 5 months from issue.

The poor fit for incidence for HHC Only is due to fitting HHC only at durations 15+. We saw a trend which showed high A/Es at early durations, but with a steadily decreasing pattern, and determined HHC should be fit on duration 15+. The next table shows fits on durations 15+.

Incidence		
Coverage Type	Actual Claims Dur 15+	A/E new Dur 15+
LTC	3022	99%
NH Only	957	99%
HHC Only	467	104%

Since most HHC Only business is at duration 15 or later, we recommend only one factor, rather than an (anti)select/ultimate factor. We chose not to update the actual to expected ratios throughout this Fortis section to reflect the worse experience in durations 10-14 for HHC Only and used only the recommended factor. This affects the apparent fit for some other attributes, primarily attained age.

Benefit Period - Incidence

Current expected assumptions vary by lifetime vs. non-lifetime Benefit Periods, with significant loads added to account for higher usage with lifetime benefits (+25% ultimate). However, the incidence original a/es below make it clear that usage increases with increasing BP for all BPs. Likewise, there is an apparent pattern of lower claim terminations in the 1st 5 months on claim with increasing BP. This emerges through the derived adjustment factors more so than through the original a/es.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Benefit Period	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
1	315	89%	0.80	100%	124	130%	1.28	100%
2	1,838	96%	0.88	100%	694	106%	1.10	102%
3	3,325	110%	1.03	100%	1,299	102%	1.05	100%
4	3,184	106%	1.04	99%	1,083	98%	0.98	100%
5	1,031	122%	1.13	102%	389	105%	1.00	99%
LifeTime	5,636	102%	1.01	101%	1,655	101%	0.93	99%

We recommend recognition of this usage pattern through BP specific incidence and 1st 5 month claim termination adjustment factors.

Inflation Type – Incidence

We are seeing favorable experience with the compound inflation plans. Both the incidence at incurral and 1st 5 months claim terminations for compound have been favorable.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Inflation Type	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
None	10,134	108%	1.01	103%	3,457	100%	none	102%
Simple	3,422	102%	1.03	96%	1,162	104%	none	97%
Compound	1,773	93%	0.92	97%	625	110%	none	91%

We recommend the introduction of factors to account for differences in incidence by inflation type, but not for claim terminations, even though the compound a/es show a significant trend away from expected.

We recommend no inflation type claim termination adjustments for a number of reasons, primarily because we expect the claim termination a/e relationships to change as the business ages due to strong interactive effects between age and inflation type. For example, the compound a/e went from 110% before adjustments to 91% afterwards. This is occurring due to a combination of the age mix and the adjustment factors by age. 60% of compound plan 1st 5 month claim terminations have occurred at ages <75, while only 17% of these have occurred at ages <75 for non-compound plans. The incurral age adjustments recommended for ages <75 impact to the compound plans disproportionately, and appear to cause an unacceptable fit. However, this business is a closed block, and most claims in the future for compound plans will occur at older ages, where the age adjustments have far less of an impact.

Risk Class - Incidence

There is no apparent trend by risk class. However, note that risk class is covariate with other attributes, especially product series. (Pre-4060 had little preferred business, while 4060+ had a high percent of preferred.)

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Risk Class	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
Preferred*	3,602	106%	1.00*	99%	1,446	105%	none	101%
Standard	11,372	104%	1.01	100%	3,689	101%	none	100%
Substandard1	339	107%	1.10	100%	103	89%	none	85%
Substandard2	16	176%	1.20	134%	4	87%	none	88%

*** Preferred Risk Class was refit by duration. 1.00 is the ultimate adjustment**

The following shows some of the durational preferred selection factors. The new factors are not adjustments to the original factors; they are replacements.

	Selected durations from issue				
Preferred class	1	5	10	15	18+
Original Factors	55%	70%	79%	80%	80%
New Factors	60%	67%	72%	75%	80%

Like with JH retail, we account for the good experience through modifications of the selection factors, but do not reduce the ultimate preferred factor below the existing factor of 80%.

Gender - Incidence

Current valuation assumptions do not vary by gender. Experience shows there to be a significant difference between male and female incidence rates.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Gender	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
Male	5,325	96%	0.90	100%	1,911	108%	1.083	99%
Female	10,004	110%	1.07	100%	3,333	99%	0.958	101%

We recommend recognition of the differences in experience by gender, both for incidence and claim terminations during the 1st 5 months on claim.

Marital - Incidence

We currently expect far fewer claims from those married at issue. This expectation was set from the EP met point. The data below shows that those married at issue go on claim at higher rates, but also come off claim at higher rates, resulting in no overall trend for incidence at the end of the elimination period.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Marital	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
Single	6,638	102%	0.95	100%	2,234	93%	0.96	100%
Married	8,691	107%	1.04	101%	3,010	109%	1.03	100%

Despite this, we recommend updating the incidence and 1st 5 month claim termination marital class factors to fit to the experience.

Elimination Period - Incidence

Experience by Elimination Period is highly correlated with experience by coverage type and policy form. Almost all of the 7 day EP policies are HHC only policies. Once this is adjusted for through Coverage Type factors, there is still an underlying trend of better experience with longer EPs. We recommend modification of existing EP incidence experience factors through the adjustment factors in the following chart.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Elimination Period	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
0	256	114%	1.245	96%	85	121%	none	121%
7	2,783	147%	1.045	109%	1,226	153%	none	103%
20	3,118	104%	1.045	100%	1,125	109%	none	114%
30	3	94%	1.100	93%	-	0%	none	0%
60	3,294	96%	0.980	97%	1,005	91%	none	100%
90	2,746	108%	0.975	98%	1,028	91%	none	90%
100	2,964	89%	0.950	99%	740	77%	none	92%
180	113	88%	0.880	100%	29	90%	none	107%
365	52	88%	0.920	99%	6	35%	none	42%

For claim terminations in the 1st 5 months, the SE for the a/e new for 20 day EP claim terminations is outside of our standard for fit, as is the 90 day EP, but we do not recommend introduction of claim termination modifiers for the 1st 5 months on claim that vary by EP. The higher than expected claim terminations for the 20 day EP will largely offset the lower than expected terminations for the 90/100 day EPs, despite a shift to a higher percent of longer EPs being inforce. Also, in general, a 10% change in the 1st 5 months claim termination rates will result in about a 2% change in total claim costs.

Issue Age - Incidence

Once adjusted for other attributes, Fortis has a good fit by issue age for both incidence at incurral and for claim terminations in the 1st 5 months on claim. We recommend no changes to Select/ultimate Issue Age incidence tables, and do not recommend introduction of issue age claim termination factors for Fortis.

	Incidence, durations 10+				Claim Terms, 1st 5 mos.			
Pivotal Issue Age	Actual Cts	A/E original	Adj factor	A/E new	Actual Cts	A/E original	Adj factor	A/E new
45	21	130%	none	121%	NA	NA	none	NA
52	139	97%	none	91%	103	227%	none	116%
57	551	108%	none	102%	285	185%	none	102%
62	2,050	105%	none	101%	820	141%	none	106%
67	4,137	103%	none	98%	1,345	110%	none	101%
72	4,660	104%	none	99%	1,436	93%	none	98%
77	2,696	108%	none	105%	870	81%	none	99%
82	1,074	103%	none	105%	385	74%	none	100%

The apparent poor fit for incidence at pivotal issue ages 77 and 82 is due to experience at these high issue ages (and also high attained ages) that is made up of a high proportion of HHC only business. As previously mentioned, we fit the HHC only business at durations 15+ instead of durations 10+, and used the 15+ factor for all durations. This factor is inadequate at earlier durations, but all of the HHC business is beyond duration 15. Development of HHC only factors at durations below 15 would only be useful for developing a better fit to the past data.

Fortis Claim Terminations

In the context of claim terminations, we split claim terminations primarily into groupings by the first 5 months on claim, which corresponds well to activity during the Elimination Period, and 6+ months, which is primarily activity after the EP. The Claim Terminations section covers the claim terminations in months 6+ on claim.

Low claim terminations A/E ratios imply longer than expected stays on claim, and therefore have unfavorable financial effects.

Product Series – Claim Terminations

Claim terminations are lower for 4060+ products, likely because pre-4060 forms include almost all Home Health Care only forms, which have high claim termination rates.

Claim Terms 6+ Months

Product Series	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
Pre - 4060	5,080	100%	100%	102.0%
4060+	2,036	91%	100%	94.5%

We recommend new adjustment factors that vary by product series.

Coverage Type – Claim Terminations

There is a difference in claim termination rates by coverage type. Continuing the trend from the 1st 5 months, HHC only claims terminate at a higher rate after 5 months on claim.

Claim Terms 6+ Months

Coverage Type	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
LTC	3,649	94%	101%	94.5%
NH Only	2,442	94%	99%	100.0%
HHC Only	1,025	126%	99%	128.0%

We recommend new adjustment factors that vary by coverage type.

Incurral Age – Claim Terminations

There are significant differences in the actual experience vs. the underlying expected assumptions by incurral age. We recommend making adjustments to account for incurral age differences.

Claim Terms 6+ Months

Attained Age	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors*
<70	383	73%	101%	76%
70-74	776	100%	100%	104%
75-79	1,552	110%	100%	111%
80-84	2,009	107%	100%	107%
85-89	1,548	96%	100%	94%
90+	848	79%	100%	76%/100%

*** We recommend 4060+ use 100% for Attained Age 90+**

The actual claim terminations above have the following split by product group:

Incurral Age band	<4060	4060+	Total
<70	137	246	383
70-74	403	373	776
75-79	991	561	1,552
80-84	1,479	530	2,009
85-89	1,281	267	1,548
90+	789	59	848

The volume of claim terminations is very low for the 4060+ block. Again, the <4060 block has a very high proportion of facility only and home care only policies, along with different benefits, so experience should be split by product series and incurral age.

We recommend the adjustments shown in "Claim Term Adj Factors" be made to the existing claim terminations which vary by attained age band. However, we also recommend not applying the age 90+ factor to the 4060+ block of business due to the immaturity of that data- most claim terminations for this product series are at incurral ages 90 & 91, and the band covers all 90+ incurral ages. We expect large increases in claim terminations by incurral age, so updating this band for only ages 90 & 91 is inappropriate. The <4060 data is far more mature, so we recommend adjusting the 90+ age band for the <4060 product series.

Benefit Period – Claim Terminations

Like incidence, expected claim termination assumptions are also split by lifetime vs. non-lifetime benefit periods, with lower claim terminations assumed for lifetime BPs. The experience indicates a need for more refined expected assumptions that vary for each BP, as there is a consistent pattern of lower claim terminations with increasing benefit periods.

We recommend expansion of the claim terminations to cover all BPs.

Claim Terms 6+ Months

Benefit Period	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
1	112	152%	100%	150.0%
2	871	118%	100%	120.0%
3	1,576	99%	100%	103.0%
4	1,551	98%	100%	97.5%
5	430	89%	100%	94.5%
LifeTime	2,576	92%	99%	94.5%

Inflation type & Risk Class – Claim Terminations

There are large differences in A/E experience by inflation type and by risk class. However, both inflation type and risk class are highly covariate with product series and coverage type. All pre-4060 HHC only policies were sold without automatic inflation increases, and nearly all pre-4060 business was sold as either standard or substandard, while nearly all 4060+ business was sold as preferred or standard.

Claim Terms 6+ Months

Inflation Type	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
None	5,148	100%	101%	none
Simple	1,329	94%	96%	none
Compound	639	88%	96%	none

Claim Terms 6+ Months

Risk Class	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
Preferred	1,474	87%	96%	none
Standard	5,400	100%	100%	none
Substandard1	238	121%	114%	none
Substandard2	4	206%	182%	none

Adjustments to the product series and introduction of coverage type factors greatly improve the fit by inflation type and risk class. The SEs associated with the revised a/es for all groupings above meet our corporate standards except for the substandard risk class, which has an SE of -1.9, which is not far outside of the standard. Since substandard business is less than 0.5% of the inforce Fortis business, we recommend not introducing adjustment factors for these two attributes.

Gender – Claim Terminations

Currently, there are no gender specific expected claim termination assumptions. Females have much lower claim termination a/es implying much longer Length of Stays.

We recommend new adjustments that vary by gender to account for these experience differences.

Claim Terms 6+ Months

Gender	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
Male	2,681	132%	98%	135.5%
Female	4,435	84%	101%	86.3%

Marital – Claim Terminations

Current expected claim termination assumptions do not vary by marital vs. single class. The a/es below imply that those who were married at issue have had higher claim termination rates.

We recommend new adjustments that vary by marital status to account for these experience differences.

Claim Terms 6+ Months

Marital Status	Actual Claim Terms 6+	A/E Original	A/E Revised	Claim Term Adj Factors
Single	3,421	86%	100%	95.0%
Married	3,695	112%	100%	102.8%

Fortis Salvage

Salvage factor assumptions currently vary by inflation type and incurral duration. We are seeing significant differences across many attributes for salvage. However, we are quite limited as to what we can implement in GGY AXIS for salvage, so adjustments need to be aggregate present value adjustments.

We recommend modifying the existing inflation type salvage factors by the following factors:

Inflation Type	Factor
None	101.1%
Simple	98.7%
Compound	97.4%

And introducing the following new adjustment factors varying by coverage type:

Coverage Type	Factor
LTC	99.2%
NH only	113.9%
HHC only	89.0%

The following shows the result of using these factors. Most remaining differences for other attributes are not significant. The overall effect of using exact factors for the remaining attributes is estimated to be immaterial, so no aggregate factor is recommended.

Inflation Type - Salvage

There is more salvage with richer inflation options. The recommended adjustments account for this.

Inflation Type	Actual Paid $	A/E Orig	Revised A/E	New Factor
None	556,864,704	103%	100%	101%
Simple	223,752,443	101%	100%	99%
Compound	125,703,863	98%	100%	97%
Total	**906,321,009**	**102%**	**100%**	

Coverage Type - Salvage

The recommended adjustments by coverage type result in a much better fit:

Coverage Type	Actual Paid $	A/E Orig	Revised A/E	New Factor
LTC	527,964,855	99%	100%	99%
NH only	277,022,927	114%	100%	114%
HHC only	101,333,228	90%	100%	89%

Other Attributes – Salvage

The following tables show the Salvage A/E's by other attributes, for which we recommend no adjustments.

Incurral Age	Actual Paid $	A/E Orig	Revised A/E
<70	67,749,433	97%	98%
70-74	115,356,116	100%	100%
75-79	216,271,885	100%	99%
80-84	256,716,475	103%	100%
85-89	173,151,067	104%	101%
90-94	66,956,726	107%	102%
95-99	9,710,032	112%	105%
100+	409,276	101%	93%

Base BP	Actual Paid $	A/E Orig	Revised A/E
1	6,247,320	86%	86%
2	74,481,422	97%	96%
3	180,834,892	97%	97%
4	183,396,153	103%	100%
5	60,784,386	99%	100%
Lifetime	400,576,836	105%	103%

MDB Group	Actual Paid $	A/E Orig	Revised A/E
<=50	34,824,800	114%	108%
51-100	578,701,052	106%	103%
101-150	238,355,447	96%	97%
151-200	50,043,381	86%	87%
201-250	2,044,029	74%	75%
251-300	2,352,299	75%	77%

Risk Class	Actual Paid $	A/E Orig	Revised A/E
Preferred	227,095,026	101%	101%
Standard	655,795,623	102%	100%
Substandard	23,430,360	103%	97%

Marital	Actual Paid $	A/E Orig	Revised A/E
Married	412,748,196	98%	97%
Single	493,572,813	105%	103%

Gender	Actual Paid $	A/E Orig	Revised A/E
Male	264,092,585	100%	99%
Female	642,228,424	103%	100%

Product	Actual Paid $	A/E Orig	Revised A/E
<4060	605,388,053	103%	99%
4060+	300,932,956	100%	101%

Group LTC – Observed Experience and Justification of Recommendation

Group experience is close to expected for incidence at incurral, but experience for claim terminations and for salvage is far from expected, with very low claim termination rates being offset by very high salvage. Part of this is due to the inclusion of claims with no dollars paid, which had been excluded in prior studies. For group, these are not just claimants that did not meet their EP, but are also those that have met the EP and are getting waiver of premium without receiving paid services. In addition, it has been a long time since group claim terminations and salvage factors have been updated, as they were not looked at in detail in the 2010 study.

There are fewer attributes studied for group. Risk classes are not used, marital discounts are not offered and marital status at issue is not recorded. The five year BP makes up 85% of the experience in the study; while GPO inflation makes up 98%, so it does not make sense to study BP or inflation type as attributes. On the other hand, group Guaranteed Issue business has had quite different experience from Fully Underwritten business, so this split is often focused on.

GLTC Background

There are some important differences between group and retail business. One of the most important is that group contracts generally only require that the benefit trigger be met (ie the ADL or Cognitive impairment requirement), while retail contracts require benefit triggers to be met **and** eligible paid services be received. This has a number of implications.

The Period of Care

For Group, benefits begin upon determination of benefit eligibility, and end only when it is determined that the person is no longer benefit eligible. For retail contracts, benefits begin with the 1st Date of Service (DOS: a date on which a payable eligible service is received) and end with the last DOS. Retail claims would basically form a subset of group claims, all else being equal. Also, due to this difference, group claims will have higher incidence, longer continuance, and better salvage than retail, and can have claims where the only benefit is waiver of premium.

The Elimination Period

Because of the benefit eligibility difference, most group contracts implicitly have true calendar day EPs (ie a 60 day EP is met 60 days after benefit eligibility is determined, despite the possibility that no services have been received).

Retail contracts, on the other hand, require services be delivered to start the EP. There are no retail contracts with a pure calendar day EP. For example, for a pure 60 calendar day EP, the EP is met 60 days after the 1st payable eligible DOS. (This would still be stricter than group, since paid services would be needed to at least start the claim.) Instead, retail contracts rely on Dates of Service, and EPs have various flavors. For a pure DOS EP, if services were delivered every other day, it would take 120 days to meet a 60 day EP. Most recent contracts do not have pure DOS EPs. They have language saying 1-7 days in a calendar week will be counted as 7. So, if care was received every other day, it would take 60 days to meet a 60 day EP. However, if care was received 1x per month, it would take 8 1/2 months to meet a 60 day EP.

We view the retail EPs as much stricter than group EPs. Those with group contracts can meet their EP without paying any money out of pocket, which is not the case for JH retail base policies without riders. The impact of the group EP differences are generally an expectation of higher incidence, perhaps higher or lower claim terminations due to more acute care coverage vs less intensive claims, and better salvage. Requiring paid services makes a big difference in the resulting claims experience.

Group Incidence

In the 2010 study, the incidence assumptions were based on the point at which the EP was met. The incidence assumptions in this study are based on the point of incurral. While the sections discussing retail business grouped incidence at incurral with claim terminations during the EP to allow comparisons to the prior study, the group section will show only incidence at incurral in this section. This is because the definitional changes made as to what constitutes a claim and a claim termination have a very large impact on claim terminations and salvage, and presenting all claim terminations together allows for a clearer presentation.

Like with JH retail and Fortis, we focus on durations 10+ for incidence, as earlier durations are heavily influenced by underwriting effects, and are also not critical to either reserve levels or to pricing. Also, like with JH retail and Fortis, the a/e revised values include all recommended changes, not just the attribute discussed in the section.

Underwriting Type - Incidence

The two key underwriting types for group are Guaranteed Issue (GI) and Fully Underwritten. Current expected assumptions vary considerably by underwriting type. Experience indicates better than expected morbidity at incurral, with some difference by underwriting type.

	Durations 10+			
UW Type	Actual Count	A/E Original	A/E Revised	Adj. Factor
GI	1,782	99.3%	100.7%	105.0%
Full uw	5,461	94.7%	99.7%	98.0%
Total	7,243	95.8%	100.0%	

Underwriting type is highly covariant with gender- the majority of males are GI while the majority of females are fully underwritten. The recommended adjustment factor for males is 0.88 and for females is 1.06 (see below). Once these adjustments are made, the GI a/e ratio gets worse, and the fully underwritten a/e ratio gets better. This in turn leads to the recommended GI and Full underwriting adjustments of 1.05 and 0.98. In other words, introducing gender adjustments reallocates good experience from GI to males, and allows for a more realistic set of factors by underwriting type to emerge.

GI Issue year 2000+ - Incidence

Past experience indicated that we had chosen a better overall risk pool of clients since issue year 2000, and we assumed a difference for this in 2010. The expected assumption is a 30% reduction in incidence wearing off to 15% over 20 years. The experience indicates that this assumption should be modified. The underwriting type assumption discussed above was developed for durations 10+, so it covers only a very small amount of business issued since 2000 (120 actual claims), so a separate review of the year 2000+ GI factors was completed.

GI Only	All Durations			Durations 10+			
Issue Year	Actual Count	A/E Original	A/E Revised	Actual Count	A/E Original	A/E Revised	Adj. Factor
<2000	2,458	97.3%	100.5%	1,662	98.1%	100.0%	100%
2000+	1,187	108.8%	103.5%	120	120.2%	111.1%	107%
total	3,645	100.8%	101.5%	1,782	99.3%	100.7%	

Since there is little experience for policies issued after 1/1/2000 in durations 10+, the focus for this assumption was on all durations. The resulting fit meets our SE guideline.

The new recommended adjustment factor of 1.07 moves the ultimate level from a 15% reduction to a 9% reduction for this block of group business issued in 2000 and later.

Attained Age – Incidence

Group age related expected assumptions consist of GI anti-selection factors that vary by duration from issue and Fully Underwritten business industry-based selection factors that vary by duration from issue and by issue age band with ultimate differences. They share common ultimate attained age incidence rates. A review of the experience data indicated that the common attained age structure is reasonable, and that the ultimate issue age related factors are also reasonable. In other words, we observed no interdependencies that would lead to, for instance, attained age incidence rates separated by gender.

The following shows the fit by attained age before and after the recommended attained age factors:

		Incidence Durations 10+							
		GI			Full uw			Total	
Attained Age	New factors**	Actual Count	A/E Original	A/E Revised	Actual Count	A/E Original	A/E Revised	Actual Count	A/E New
<60	80%-105%	294	93.5%	95.9%	71	100.1%	104.9%	364	97.5%
60-64	105%	256	103.1%	97.2%	103	100.6%	100.9%	359	98.0%
65-69	105%	341	105.8%	100.4%	212	89.7%	93.3%	554	98.2%
70-74	102%	369	101.8%	101.2%	614	97.1%	96.4%	984	99.0%
75-79	97%	343	101.8%	103.3%	1,342	89.8%	96.3%	1,685	98.9%
80-84	95%	139	83.0%	101.9%	1,819	95.0%	99.4%	1,958	100.0%
85-89	101%	38	103.8%	102.9%	1,024	95.9%	99.4%	1,062	100.1%
90+	111%	3	103.8%	102.9%	279	109.4%	100.3%	281	100.7%
Total		1,782	1	100.7%	5,464	94.7%	99.7%	7,246	100.0%

** factors are interpolated values that are specific to each age. The ones shown are for the center of the age range displayed.

Slopes by attained age are fairly similar for GI and fully underwritten business. The recommended factors do not vary by underwriting type.

Issue Age – Incidence

The adjustments made to attained age and other attributes resulted in the following fit by issue age band:

	Incidence Durations 10+							
	GI			Full uw			Total	
Issue Age	Actual Count	A/E Original	A/E Revised	Actual Count	A/E Original	A/E Revised	Actual Count	A/E New
0-39	87	71.9%	81.0%	20	94.0%	110.2%	107	85.2%
40-49	401	107.3%	103.4%	110	96.7%	95.1%	511	101.5%
50-54	350	101.3%	98.7%	195	101.2%	99.4%	544	98.9%
55-59	416	102.0%	103.0%	530	93.8%	95.7%	946	98.8%
60-64	367	101.6%	107.2%	1,463	100.1%	106.2%	1,830	106.4%
65-69	112	85.0%	91.7%	1,877	90.7%	97.8%	1,989	97.5%
70-74	44	95.4%	101.3%	962	93.4%	98.7%	1,006	98.8%
75-79	4	126.6%	125.7%	252	95.4%	94.2%	256	94.6%
80+	1	28.0%	24.9%	53	105.7%	98.5%	54	92.3%

The highlighted cells above are cells that do not meet our SE requirement. Rather than add issue age adjustment factors, we recommend no action at this time.

The 1st one is GI business at issue ages 0-39. The favorable a/es may be due to the current expected GI antiselection factors, which are a set of flat extra factors added to incidence. This flat extra may be too large at very young attained ages, but we do not recommend complicating this in order to get a better fit. In addition, all GI A/Es show a lack of fit, but meet our SE guideline. This is likely due to the low volume of GI claims to date. We recommend no changes to GI flat extra factors or introduction of GI issue age factors at this time.

Like with JH retail and Fortis, current group fully underwritten business expectations include industry-based selection factors that vary by duration from issue and by issue age band with ultimate differences. The fitted data above indicates that age band 60-64 ultimate experience is materially different than expected (A/E= 106.2%, SE=-2.3). However, while not material, the bands around the 60-64 band show favorable experience after fitting, and if all issue age factors were updated, the total reserve impact would be immaterial. We recommend no changes to group fully underwritten issue age assumptions at this time.

Gender - Incidence

Current expected assumptions do not vary by gender. The experience shows large differences in incidence by gender, similar to what is seen in the retail business.

	Durations 10+			
Gender	Actual Count	A/E Original	A/E Revised	Adj. Factor
Male	3,191	87%	99%	88%
Female	4,052	104%	100%	106%

We recommend reflecting the observed gender differences in the expected incidence assumptions.

Group Claim Terminations

As previously mentioned, GLTC contracts do not require services in place to stay on claim, only that a person remains disabled per the contract. This is a key difference from retail products. Previous studies have been EP met based and required money to have been paid in order to be considered a claim. The current study is incurral based, and includes all claims that are documented as having met the benefit trigger, regardless of whether any benefits were paid or even if any bills were submitted.

Incurred dates of service are preferred for start and end dates, as they are consistent with accrual accounting, and are used for retail business. However, because of the group trigger difference, claims do not start with the 1st date of delivered services, nor do they necessarily end with the last, and waiver of premium may precede or follow service usage for an extended period of time, or be the entire claim. Therefore, we rely on the system recorded claim incurral date for all group claims (rather than the recorded 1st date of incurred services) and the termination processed date for the end date of group claims without paid services. Since it can frequently take a significant amount of time for a claim to be closed, this leads to low claim termination rates, especially in early durations on claim. This also impacts salvage calculations.

Underwriting Type & Incurral Age – Claim Terminations

The impact of the above mentioned changes primarily impact the early durations on claim. The overall A/E for the 1st 5 months on claim is 49%, indicating a large change is needed to early claim termination rates.

Also, current expected assumptions do not vary by incurral age or underwriting type during the 1st 5 months on claim. The data indicates that there are also A/E differences for GI vs full underwriting by incurral age.

Months 1-5	Guranteed Issue			Fully Underwritten			1-5 Adj Factor	
Incurral Age	Actual Terms	A/E Original	A/E Revised	Actual Terms	A/E Original	A/E Revised	GI	FU
0-59	205	57%	96%	55	76%	85%	60%	90%
60-69	202	63%	109%	166	79%	99%	65%	80%
70-74	74	51%	99%	168	58%	90%	50%	65%
75-79	60	56%	102%	249	45%	101%	55%	45%
80-84	21	52%	100%	227	35%	89%	50%	40%
85-89	4	38%	79%	93	28%	93%	50%	30%
90+	1	146%	0%	28	32%	93%	50%	35%
Total	567	58%	102%	986	45%	94%		

We recommend adjustments to the claim termination factors in the 1st 5 months on claim to account for these differences.

Experience is much closer to expected for claim terminations in months 6+, but the experience indicates a need to adjust the overall level along with the by age and by underwriting type assumptions.

We recommend adjustments to the claim termination factors for months 6+ on claim to account for these differences.

Gender – Claim Terminations

Current assumptions do not vary by gender. There are clear differences by gender and underwriting type.

GI Only	1st 5 months			Months 6+			Adjustment Factor	
Incurral Age	Actual Terms	A/E Original	A/E Revised	Actual Terms	A/E Original	A/E Revised	1-5	6+
Male	345	58%	95%	782	91%	100%	105%	105%
Female	222	57%	101%	424	81%	104%	93%	95%

FU Only	1st 5 months			Months 6+			Adjustment Factor	
Incurral Age	Actual Terms	A/E Original	A/E Revised	Actual Terms	A/E Original	A/E Revised	1-5	6+
Male	415	51%	94%	1,199	117%	100%	112%	123%
Female	571	42%	93%	1,792	84%	99%	92%	89%

Experience showed significant differences by both underwriting type and gender. We recommend recognition of both through gender/underwriting type modifiers (included the table above).

Policy Year and Duration on Claim – Claim Terminations

At the time the expected claim termination assumptions were last set, there was limited group claim termination data. The experience that existed showed that claim terminations for group were lower than for retail. The group assumptions were set using group experience for a number of durations from issue and for only certain months on claim, with an assumption of a reversion to the retail assumptions over a number of policy durations.

For GI, this wear-off concluded by policy year 25, while for fully underwritten business, the wear-off concluded by policy year 8. In the 2013 study we review whether the experience is in line with the assumptions including the group modifiers (implicit in the analysis above), and to the extent possible, whether the wear-off to the higher ultimate retail expectations is appropriate.

Since the GI wear-off is largely outside of the experience period, and since the experience prior to the wear-off is covered in the sections above, no a/e data will be presented.

The current expected modifiers to the ultimate claim terminations are as follows for GI business:

	Duration from issue											
IC age	1-14	15	16	17	18	19	20	21	22	23	24	25+
<60	0.60	0.64	0.67	0.71	0.75	0.78	0.82	0.85	0.89	0.93	0.96	1.00
60+	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

These are applied only to claim terminations in months 19+ on claim.

We recommend the following replacement assumptions:

	Duration from issue
IC age	All durations
<60	0.60
60+	1.00

This is an adjustment that is largely outside of the experience period. We recommend this adjustment because we expect the group vs. retail differences to be permanent due to the differences in benefit triggers and the revised definitions in claim terminations.

The current expected assumption modifiers to the ultimate claim terminations are as follows for fully underwritten business:

Full uw	IC age	mos on clm 16-42			
Pol Yr	0-59	60-69	70-74	75-79	80+
1-5	1.00	1.00	0.80	0.80	0.50
6	1.00	1.00	0.87	0.87	0.67
7	1.00	1.00	0.93	0.93	0.83
8+	1.00	1.00	1.00	1.00	1.00

These are applied only to claim terminations in months 16-42 on claim.

We recommend following replacements to the current assumptions:

FU	IC age	mos on clm 16-42			
Pol Yr	0-59	60-69	70-74	75-79	80+
All	1.00	1.00	0.80	0.80	0.50

This recommended change has no impact on policy years 1-5 and little impact on 6&7, but becomes fully effective for durations 8+. We focus our analysis on durations 8+. With this change, the fully underwritten results are as follows for the applicable subset:

Claim terminations, months 16-42 only, full underwriting only, policy years 8+		
Incurral Age Band	Actual 16-42mos	A/E (revised)
0-59	27	79%
60-69	124	99%
70-79	448	98%
80+	514	138%

For ages <69, there was no change to PolYr/IC age assumptions. For attained ages 70-79, the good a/e fit at 98% implies that the change is appropriate, and that there is no support for the prior wear-off. For ages 80+, there is limited support, as the claim termination a/e of 138% indicates that the revised claim terminations are too low; to get a 100% a/e, the wear-off factor would be 0.69 (1.38*0.50), not 1.00. We recommend the more conservative value of 0.50, removing the wear-off altogether. This is not as conservative as it may appear, as it applies only to months on claim at durations 16-42, which on a PV basis over the life of a claim, is about ¼ of the cost. Also, given the anomaly between the experience below age 80 and 80+, we would prefer to maintain consistency with the theory that there is no wear-off needed, and that the group experience is and will be permanently different from retail for the previously mentioned reasons. This also greatly simplifies the group claim termination structure, as it removes the need for policy year factors for claim terminations.

Future studies should monitor this closely and look to further simplify this structure.

Group Salvage

GLTC Salvage A/E ratios have been very low. This offsets the low A/E experience seen in claim terminations. This low salvage A/E is driven in part by the definitional changes made for group along with the inclusion in the 2013 study of claims with no dollars paid. Again, for most group policies, there is no requirement for services to be in place for the claim to start or to continue.

Note also that group expected salvage factors are complex, varying by inflation type, duration from issue, underwriting type, home health coverage percent, and issue age band, and attained age. It was beyond the scope of this study to review these in depth. Instead, we focused on the ultimate actual and expected salvage experience, using policy durations 10+, incurral ages 75+, and incurrals prior to 2010 subset to represent ultimate experience.

Using all data from inception shows an overall A/E of 72%, while the defined “ultimate subset” has an A/E of 70%.

We recommend a simple adjustment factor of 0.70 be applied to all salvage factors. We recommend no other group salvage adjustments.

All underwriting types	Paid amounts			
Dataset	Actual	Expected New	A/E Orig	A/E New
All data, from inception	394,695,003	381,540,408	72.4%	103.4%
"Ultimate" subset	136,692,985	136,844,865	69.9%	99.9%

Note that "ultimate" experience is better than from inception experience, and is what we used for determination of the recommended factor. For analysis of other attributes, we used the full datasets to improve the by attribute credibility. This is especially needed for GI.

GI only	Paid amounts			
Dataset	Actual	Expected New	A/E Orig	A/E New
All data, from inception	113,858,120	111,652,455	71.4%	102.0%
"Ultimate" subset	9,654,638	10,414,031	64.9%	92.7%

Incurral Age – Salvage

There's no discernible pattern by age, and the fit is within the SE requirements. Note again that we did not revise the policy year salvage factors to fit more closely in early policy years. Had we done so, the A/E's for all durations would be 100%, but from a reserve standpoint, this has no materiality.

IC Age	Actual Paid $	A/E Orig	A/E revised
0-39	11,238,161	80%	115%
40-49	19,937,704	76%	108%
50-54	16,229,187	72%	103%
55-59	20,314,233	68%	97%
60-64	29,725,649	75%	107%
65-69	37,073,742	72%	103%
70-74	61,495,199	74%	106%
75-79	83,242,986	72%	102%
80-84	75,054,656	69%	99%
85-89	33,313,889	74%	106%
90-94	6,632,091	76%	108%
95-99	437,505	77%	110%
Total	**394,695,003**	**72.4%**	**103%**

Benefit Period – Salvage

Except for the 10+ year BP group, there appears to be a pattern of worse experience with increasing BP. However, no BPs have a statistically significant difference from the overall aggregate.

Base BP (yrs)	Actual Paid $	A/E Orig	a/e revised
2	591,479	47%	68%
3	4,719,665	63%	91%
4	36,428,176	68%	97%
5	343,563,132	73%	105%
6	4,203,234	77%	111%
7	11,451	11%	15%
8	1,441	7%	10%
10	4,741,007	62%	88%
Total	**394,259,584**	**72.3%**	**103%**

Elimination Period – Salvage

The 120 day EP shows much worse experience than other EPs. The 120 day EP was issued only to IBM. Since IBM is anticipated to be a stable proportion of the future experience, we do not recommend modifiers that vary by EP.

Base EP	Actual Paid $	A/E Orig	a/e revised
45	2,224,309	67%	96%
60	118,295,010	72%	103%
90	192,301,723	69%	99%
100	374,685	125%	179%
120	80,720,049	82%	117%
180	38,658	56%	80%
365	305,150	61%	87%
Total	**394,259,584**	**72%**	**103%**

Inflation Type – Salvage

Until about 2006, almost all group business was sold with a GPO, and did not have built-in inflation coverage. Compound business is showing more favorable results than GPO, but has low credibility, and a higher percent of immature data. We do not recommend inflation type modifiers.

Inflation Type	Actual Paid $	A/E Orig	a/e revised
GPO	386,529,321	72%	104%
Compound	7,730,263	65%	93%
Total	**394,259,584**	**72%**	**103%**

Maximum Daily Benefit – Salvage

Business with higher MDBs has better A/E experience than business with lower MDBs. We do not recommend setting salvage factors that vary by MDB. To do so would require a very detailed study by issue year cohort. The current aggregate modification approach should be conservative, as once inflation is considered, relatively smaller MDB amounts were issued in the earliest issue years.

MDB Group	Actual Paid $	A/E Orig	a/e revised
lt50	5,082,057	78%	112%
51-100	123,979,077	77%	110%
101-150	141,364,559	76%	109%
151-200	72,864,310	66%	94%
201-300	40,208,029	63%	90%
301-400	8,445,482	60%	85%
400+	2,316,069	60%	85%
Total	**394,259,584**	**72%**	**103%**

Underwriting Type – Salvage

There is little variation in salvage by underwriting type.

UW Type	Actual Paid $	a/e	a/e new
Full uw	265,907,784	73%	104%
GI	113,842,833	71%	102%
MGI	14,508,967	70%	100%
Total	**394,259,584**	72.3%	103%

Gender – Salvage

By gender differences are not statistically significantly different from the aggregate.

Gender	Actual Paid $	a/e	a/e new
Female	231,772,450	74%	105%
Male	162,487,134	70%	101%
Total	**394,259,584**	72%	103%

Modified Guaranteed Issue Review

MGI makes up about 6% of future active GLTC life reserves, and about 4% of past experience. We use the GI expected assumptions for this block. We excluded this block of business in the 2010 analysis, and partially excluded it for the 2013 study- it was excluded for incidence and claim terminations, and included in the salvage study. In 2010, we were concerned about how to characterize MGI, and wanted to make sure it did not impact the recommended factors for GI or fully underwritten business. We chose to use GI expectations as MGI experience was closer to GI than to fully underwritten. This is a review of that fit for incidence, claim terminations and salvage.

	Incidence, Durs 10+		Clm Terms		Salvage	
UW Type	Actual ct	a/e new	Actual ct	a/e new	Actual $m	a/e new
GI	1,782	101%	1,773	100%	265.9	104%
FU	5,461	100%	3,977	98%	113.8	102%
MGI	202	100%	235	111%	14.5	100%
Total	7,445	100%	5,985	99%	394	103%

The chart above shows that GI assumptions applied to MGI continue to be reasonable. The a/es above may indicate that this is too conservative for claim terminations and salvage, but these a/es are not yet statistically significant.

Appendix 1 – JH Retail 2013 Morbidity Basis Change Recommendations

This section 1st outlines the recommended morbidity changes to be made for IFRS ALR & DLR valuation for all JH retail products up to Leading Edge and Custom Care III. The changes are not applied to LE and CCIII. Changes which are purely regroupings of assumptions that have no basis impact are not listed. Also, exact instructions on how to apply the recommendations are not listed in this document.

JH Incidence (technically, hazard rates associated with incidence)

1. Incidence: Issue Age Selection Factors (Factor Summary A.5). Replace table A.5 with Table A.5.a.

Table A.5: Current JH Retail Selection Factors

Policy Year ---------->

Issue Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14+
45	0.30	0.40	0.55	0.65	0.67	0.69	0.71	0.75	0.79	0.83	0.88	0.92	0.96	1.00
52	0.30	0.40	0.55	0.65	0.67	0.69	0.71	0.75	0.79	0.83	0.88	0.92	0.96	1.00
57	0.30	0.40	0.55	0.65	0.67	0.69	0.71	0.75	0.79	0.83	0.88	0.92	0.96	1.00
62	0.25	0.40	0.45	0.55	0.65	0.70	0.85	0.95	1.00	1.00	1.00	1.00	1.00	1.00
67	0.35	0.45	0.60	0.75	0.85	0.95	1.00	1.05	1.10	1.10	1.10	1.10	1.10	1.10
72	0.35	0.55	0.75	0.85	0.90	1.00	1.10	1.15	1.15	1.15	1.15	1.15	1.15	1.15
77	0.35	0.60	0.80	0.90	1.00	1.15	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
82	0.35	0.70	0.85	0.95	1.10	1.20	1.30	1.35	1.35	1.35	1.35	1.35	1.35	1.35

Table A.5.a: Recommended JH Retail Selection Factors

Policy Year ---------->

Issue Age	1	2	3	4	5	6	7	8	9	10	11	12	13	14+
45	0.28	0.38	0.56	0.66	0.74	0.70	0.73	0.79	0.83	0.83	0.88	0.92	0.96	1.00
52	0.28	0.38	0.56	0.66	0.74	0.70	0.73	0.79	0.83	0.83	0.88	0.92	0.96	1.00
57	0.29	0.40	0.58	0.69	0.77	0.72	0.76	0.82	0.87	0.87	0.93	0.97	1.01	1.05
62	0.23	0.39	0.46	0.56	0.73	0.72	0.88	1.01	1.07	1.11	1.11	1.11	1.11	1.11
67	0.29	0.39	0.55	0.69	0.85	0.87	0.93	1.01	1.05	1.11	1.11	1.11	1.11	1.11
72	0.28	0.46	0.67	0.76	0.87	0.89	0.99	1.06	1.07	1.12	1.12	1.12	1.12	1.12
77	0.27	0.48	0.68	0.77	0.93	0.98	1.04	1.07	1.07	1.16	1.16	1.16	1.16	1.16
82	0.28	0.58	0.76	0.85	1.07	1.07	1.17	1.25	1.25	1.22	1.22	1.22	1.22	1.22

2. Incidence: Attained Age (Factor Summary A.1). Apply the modifiers in Table A.1.a to the attained age incurral point hazard rates.

Table A.1.a: Recommended Attained Age Incidence Adjustments

AA	Adj.	AA	Adj.	AA	Adj.	AA	Adj.
18-57	1.520	66	1.186	75	1.056	84	1.055
58	1.499	67	1.133	76	1.040	85	1.043
59	1.480	68	1.128	77	1.025	86	1.031
60	1.460	69	1.122	78	1.035	87	1.019
61	1.441	70	1.117	79	1.046	88	1.028
62	1.421	71	1.111	80	1.057	89	1.037
63	1.359	72	1.106	81	1.068	90	1.046
64	1.298	73	1.089	82	1.079	91	1.055
65	1.241	74	1.072	83	1.067	92+	1.064

3. Incidence: Product and Benefit Period (Factor Summary A.7). Continue use of the existing BP multipliers. In addition, apply the following new multipliers by BP and product series:

Table A.7.a: Recommended JH Retail Benefit Period Incidence Modifiers

Benefit Period	ADV	Gold	CC+
1	1.043	0.841	0.830
2	1.043	0.841	0.830
3	1.100	0.974	0.960
4	1.000	1.025	1.010
5	0.886	0.913	1.026
6	1.000	1.056	1.041
10	1.000	0.890	0.878
LifeTime	0.991	0.991	0.977

(BP refers to the base BP. Mappings for BP codes and for policy forms to the Benefit Periods and the policy series are provided in instructions to valuation.)

4. Incidence: Risk Class (Factor Summary A.3). Replace the preferred factors found in table A.3 below with those found in table A.3.a. In addition, for Custom Care and later, apply the factors found in table A.3.b to the risk class factors.

Table A.3: Current JH Retail Risk Class Incidence Factors

Policy Year	1	2	3	4	5	6	7	8	9	10	11	12	13+
Preferred	0.547	0.602	0.637	0.670	0.697	0.721	0.742	0.761	0.776	0.788	0.796	0.800	0.800
Standard	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Substd 1	1.919	1.842	1.778	1.724	1.682	1.647	1.623	1.607	1.599	1.599	1.599	1.599	1.599
Substd 2	2.657	2.444	2.297	2.183	2.084	2.001	1.931	1.873	1.826	1.790	1.763	1.745	1.736

Table A.3.a: New Preferred Class Incidence Factors

Policy Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
Preferred	0.600	0.618	0.630	0.637	0.642	0.648	0.652	0.656	0.659	0.664	0.671	0.679	0.689	0.702	0.716	0.732	0.750	0.771	0.795	0.800

Table A.3.b: New Substandard Class Incidence Adjustments - Customer Care and Later Products

Risk Class	CC & Later
Preferred	1.00
Standard	1.00
Substd 1	0.80
Substd 2	0.90

5. Incidence: Gender (New Factor Summary Item A.14). Apply the following new factors by gender:

Table A.14: Recommended JH Retail Gender Incidence Factors

Gender	Factor
Male	0.920
Female	1.050

6. Incidence: Marital Status (Factor Summary A.4). In addition to other marital adjustments, apply the following new modifiers:

Table A.4.4: Recommended JH Retail Incidence Factors by Marital Status

Marital Status	Factor
Single	0.920
M1	1.061
M2	1.076

Marital status is the marital status at time of issue. M1 factors from this table are intended to apply to all lives for Advantage and Gold series receiving a marital discount and also Custom Care and later "M1s" (Married, one applying). M2 factors apply to all Custom Care and later policies where both members of a couple apply. The exact mapping of the marital classes to the codes in the new valuation marital field will not be covered here, but the intent is to match the marital groupings used in the experience study.

7. Incidence: Marital Frailty (Factor Summary A.4.2). Replace table A.4.2 with table A.4.2.a.

Table A.4.2: Current JH Retail Incidence Factors by Attained Age

Attained Age	<=60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Marrital Frailty Factor	1.000	1.010	1.021	1.031	1.042	1.053	1.032	1.012	0.992	0.973	0.954	0.976	0.999	1.022	1.046	1.071
Attained Age	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90+	
Marrital Frailty Factor	1.089	1.109	1.128	1.148	1.168	1.190	1.212	1.234	1.257	1.281	1.278	1.275	1.272	1.270	1.267	

Table A.4.2.a: Revised JH Retail Incidence Factors by Attained Age

Attained Age	<=60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
MarritalFrailtyFactor	1.000	1.010	1.021	1.031	1.042	1.053	1.032	1.012	0.992	0.973	0.954	0.976	0.999	1.022	1.046	1.071
Attained Age	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91
MarritalFrailtyFactor	1.089	1.109	1.128	1.148	1.168	1.190	1.212	1.234	1.257	1.281	1.278	1.275	1.272	1.270	1.267	**1.250**
Attained Age	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107
MarritalFrailtyFactor	**1.233**	**1.217**	**1.202**	**1.188**	**1.174**	**1.161**	**1.150**	**1.139**	**1.129**	**1.120**	**1.111**	**1.103**	**1.096**	**1.090**	**1.084**	**1.079**
Attained Age	108	109	110	111	112	113	114	115	116	117	118	119	120+			
MarritalFrailtyFactor	**1.075**	**1.071**	**1.068**	**1.065**	**1.062**	**1.060**	**1.058**	**1.056**	**1.054**	**1.053**	**1.049**	**1.049**	**1.049**			

JH Retail Claim Termination

8. Marital (Factor Summary AH.3). Apply the following new marital status modifiers to all claim termination rates. The "1st 5 mos" factors are for the first five months from claim incurral, and "6+ mos" are for claim durations month six and later.

Table AH.3: Recommended JH Retail Marital Status Termination Adjustments

Marital Status	months from Incurral 1st 5 mos	6+ mos
S	0.939	0.959
M1	1.030	1.035
M2	1.137	1.175

Marital status is the marital status at time of issue. "S" is "Single". M1 factors from this table are intended to apply to all lives for Advantage and Gold series receiving a marital discount and also Custom Care and later "M1s" (Married, one applying). M2 factors apply to all Custom Care and later policies where both members of a couple apply. The exact mapping of the marital classes to the codes in the new valuation marital field will not be covered here, but the intent is to match the marital groupings used in the experience study.

9. Product (Factor Summary AH.4). Apply the following modifiers by product series grouping to the claim termination rates.

Table AH.4.: Recommended JH Retail Product Termination Adjustments

Product	months from Incurral 1st 5 mos	6+ mos
Adv	0.942	1.001
Gold	1.082	1.030
CC+	0.902	0.838

Mappings recommended for use between the above product series groups and the valuation policy forms will not be included here. Note however, that experience analysis groups some old RWJ plans as "Adv" and some as "Gold", while valuation codes all of these as "RWJ". In the past study, weighted factors were developed for the RWJ class. Since 80% of the inforce in "RWJ" is of the Gold era, and given the small number remaining, we will map all RWJ to "Gold" for valuation purposes.

10. Incurral Age (Factor Summary AH.5). Apply the following modifiers to the claim termination rates:

Table AH.5: Recommended JH Retail Incurral Age Band Termination Modifiers

Incurral age band	Months from Incurral 1st 5 mos	6+ mos
<70	1.505	0.944
70-74	1.218	1.000
75-79	1.056	1.014
80-84	0.996	1.030
85-89	0.936	1.000
90+	1.162	1.000

11. Gender (Factor Summary AH.2). Apply the following new by gender modifiers to claim termination rates:

Table AH.2: Recommended JH Retail Gender Termination Modifiers

Gender	months from Incurral 1st 5 mos	6+ mos
Male	1.103	1.290
Female	0.942	0.867

12. Benefit Period (Factor Summary AH.1). Apply the following new BP modifiers to claim termination rates:

Table AH.1: Recommended JH Retail Benefit Period Termination Modifiers

Benefit Period	months from Incurral 1st 5 mos	6+ mos
1	1.080	1.104
2	1.080	1.104
3	1.023	0.987
4	1.021	0.973
5	0.985*	0.943*
6	0.950	0.912
10	0.877	1.147
Lifetime	0.871	0.967

*Adv & GS Use factors of 1.046 and 1.056

13. Issue Age (Factor Summary AH.6). Apply the following new issue age modifiers to claim termination rates:

Table AH.6: Recommended JH Retail Issue Age Band Termination Modifiers

Issue Age Band	months from Incurral 1st 5 mos	6+ mos
18-47	1.120	1.046
48-54	1.120	1.046
55-59	1.120	1.052
60-64	1.120	1.026
65-69	1.006	0.987
70-74	0.861	1.005
75-79	0.787	0.988
80+	0.669	1.012

14. Claim Duration (Factor Summary AH.7). Apply the following modifiers to claim termination rates:

Table AH.7: Recommended JH Retail Duration on Claim Termination Modifiers

Duration on Claim (month)	Factor
1-5	1.0200
6-12	1.0132
13-36	0.9516
37+	1.0193

JH ALR Salvage

15. Salvage: Inflation (Factor Summary K.2). Apply the following modifiers to the inflation type factors.

Table K.2: Recommended JH Retail ALR Inflation Salvage Modifiers

Inflation	Factor
None	1.010
Simple	1.046
Compound	1.053

Note that "None" includes no inflation and GPO type inflation. "Simple" are all plans using simple inflation, including those with simple inflation landing spots. "Compound" is used for everything else.

16. Salvage: Marital Status (Factor Summary K.1). Apply the following new marital modifiers:

Table K.1: Recommended JH Retail ALR Marital Status Salvage Adjustments

Marital Status	Factor
Single	1.024
M1	0.996
M2	0.952

The same marital status mappings as described for claim terminations are to be used.

Other JH Retail Changes

17. ICP. Move the "ICP savings effect" from incidence to salvage (FS A.2 and K.3). Revise incidence factor A.2 from 1.052 to 1.104. Apply an adjustment factor of 0.96 to salvage tables.

18. Claim cost: Pre-Advantage (Factor Summary F). Update the "Comp" factor from 1.25 to 1.05.

19. Service day multiplier (AI). Revise these multipliers per the following chart.

Product	Current	Recommended
Advantage	1.41	1.41
Gold	1.41	1.41
Custom Care	1.00	1.19
Custom Care II	1.00	1.19
Essential Care II	1.41	1.41
CCII CA	1.41	1.41
NYP	1.41	1.41
Leading Edge	1.41	1.41
CCII Enhanced	1.00	1.19
CCIII	1.41	1.41

20. HHC% (AT). Apply a global claim cost factor of 1.003.

21. MDB anti-selection (A.1). Apply a factor of 1.015 to baseline incidence hazard rates.

22. Recovery (AH.8). Replace the existing recovery table with table AH.8.a, which varies by incurral age.

AH.8 Existing Factors

Year on Claim ----->

Year On Claim	1	2	3	4	5+
Recovery%	24.0%	5.0%	2.0%	1.0%	0.0%

AH.8.a Recommended Factors

Year on Claim ----->

Incurral Age	1	2	3	4	5+
<70	37.0%	18.0%	17.0%	2.5%	0.0%
70-74	31.0%	7.0%	3.5%	1.5%	0.0%
75-79	27.0%	7.0%	1.0%	1.0%	0.0%
80-84	21.0%	3.0%	1.0%	1.0%	0.0%
85-89	15.0%	3.0%	1.0%	1.0%	0.0%
90+	13.5%	2.5%	0.0%	0.0%	0.0%

23. State loads (Factor Summary N.9 and O). Set all state loads prior the CCIII/LE product series to 1.00 (State load Table O). Set CCII CA state load of 9% to 0%.

24 DLR Salvage. Replace the existing DLR salvage factors:

	Incurral date <=6/30/2010	Incurral date >6/30/2010
Prior table	67.3%	61.5%
Updated table	64.6%	62.1%

Appendix 2 – Fortis 2013 Morbidity Basis Change Recommendations

This section lists the recommended changes. All changes are modifications to existing expected assumptions.

Incidence

Factors that are newly introduced are applied to existing incidence hazard rates.

1. Incidence: Replace Product Series morbidity factors

Existing 4060+ factor: 0.8226; Existing <4060 factor: 1.00

New replacement factors vary by duration from issue for 4060+. A 900 series factor is also introduced.

Product Series	Duration	Factors
4060+	1	46.20%
4060+	2	57.65%
4060+	3	60.81%
4060+	4	62.39%
4060+	5	63.97%
4060+	6	68.70%
4060+	7	70.28%
4060+	8	73.44%
4060+	9	78.18%
4060+	10	81.62%
4060+	11	85.46%
4060+	12+	90.82%
Pre 4060; >900s	All	100.00%
900's	All	80.00%

2. Incidence: Introduce Coverage Type factors

Coverage type	Factor
LTC	1.12
NH	0.84
HHC	1.32

3. Incidence: Revise Benefit Period factors

Existing table:

	Policy Year--->							
Benefit Period	1	2	3	4	5	6	7	8+
<10 years	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10+ years	2.25	1.75	1.50	1.45	1.40	1.35	1.30	1.25

Replacement table:

Policy Year ---->

Benefit Period	1	2	3	4	5	6	7	8+
1	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
2	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
3	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
4	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
5	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
10+	2.27	1.77	1.52	1.46	1.41	1.36	1.31	1.26

4. Incidence: Introduce Inflation type factors

Inflation	Factor
None	1.01
Simple	1.03
Compound	0.92

5. Incidence: Revise Risk Class factors

Existing factors:

Policy Year ---->

Risk Class	1	2	3	4	5	6	7	8	9	10	11	12	13+
Preferred	0.547	0.602	0.637	0.670	0.697	0.721	0.742	0.761	0.776	0.788	0.796	0.800	0.800
Standard	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Substandard 1	1.919	1.842	1.778	1.724	1.682	1.647	1.623	1.607	1.599	1.599	1.599	1.599	1.599
Substandard 2	2.657	2.444	2.297	2.183	2.084	2.001	1.931	1.873	1.826	1.790	1.763	1.745	1.736

New risk class factors:

Policy Year ---->

Risk Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18+
Preferred	0.600	0.618	0.637	0.656	0.669	0.682	0.696	0.703	0.710	0.717	0.724	0.731	0.739	0.746	0.753	0.768	0.784	0.800
Standard	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010
Substandard 1	2.111	2.027	1.956	1.897	1.850	1.812	1.786	1.768	1.759	1.759	1.759	1.759	1.759	1.759	1.759	1.759	1.759	1.759
Substandard 2	3.188	2.933	2.756	2.619	2.501	2.401	2.318	2.247	2.192	2.148	2.115	2.095	2.084	2.084	2.084	2.084	2.084	2.084

6. Incidence: Introduce Gender factors

Gender	Factor
Male	0.900
Female	1.070

7. Incidence: Revise marital frailty factors beyond attained age 90.

Existing factors:

Attained Age	<=60	.....	90+
Marital Frailty Factor	65.09%	.....	131%

Revised factors:

Attained Age	<=60	.....	90	91	92	93	94	95	96	97	98	99	100	101	102	103
Marital Frailty Factor	65.09%	.....	131%	129%	127%	125%	124%	122%	120%	119%	117%	116%	115%	114%	113%	112%

Attained Age	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120+
Marital Frailty Factor	111%	110%	109%	109%	108%	108%	107%	107%	107%	106%	106%	106%	106%	106%	105%	105%	105%

8. Incidence: Introduce additional marital adjustment factors

Marital Status	Factors
Single	0.950
Married	1.040

9. Incidence: Revise Elimination Period factors

Existing EP factors are multiplied by the following adjustments:

EP	Factor
0	1.245
20	1.045
30	1.100
60	0.980
90	0.975
100	0.950
180	0.880
365	0.920
730	1.000

10. Incidence: Introduce Maximum Daily Benefit factor

Apply a factor of 1.019 to incidence hazard rates to account for differences in MDB usage.

Claim Terminations (ALR & DLR)

Adjustments here are applied to the existing expected claim termination rates unless otherwise specified. They are applied by month on claim.

11. Claim terminations: Introduce Product Series modifiers.

	1st 5 mos	6+ mos
<4060	103.0%	102.0%
4060+	95.5%	94.5%

12. Claim terminations: Introduce Coverage Type factors

Coverage Type	1st 5 mos	6+ mos
LTC	95.0%	94.5%
NH only	82.5%	100.0%
HH only	162.0%	128.0%

13. Claim terminations: Apply Incurral Age modifiers

New factors Pre 4060

Incurral Age	1st 5 mos	6+ mos
lt70	2.180	0.760
70-74	1.410	1.040
75-79	1.130	1.110
80-84	0.960	1.070
85-89	0.760	0.940
90+	0.690	0.760

New factors 4060+

Incurral Age	1st 5 mos	6+ mos
lt70	2.180	0.760
70-74	1.410	1.040
75-79	1.130	1.110
80-84	0.960	1.070
85-89	0.760	0.940
90+	0.690	1.000

14. Claim terminations: Introduce Benefit Period modifiers

BP	1st 5 mos	6+ mos
1	1.280	1.500
2	1.100	1.200
3	1.050	1.030
4	0.980	0.975
5	1.000	0.945
Lifetime	0.930	0.945

15. Claim terminations: Introduce Gender factors

Gender	1st 5 mos	6+ mos
Male	1.083	1.355
Female	0.958	0.863

16. Claim terminations: Introduce Marital factors

Marital Status	1st 5 mos	6+ mos
Single	0.960	0.950
Married	1.030	1.050

17. Revise recovery proportion factors.

Existing Factors

Year on Claim ----->

Year On Claim	1	2	3	4	5+
Recovery%	24.0%	5.0%	2.0%	1.0%	0.0%

Recommended Factors

Year on Claim ----->

Incurral Age	1	2	3	4	5+
<70	37.0%	18.0%	17.0%	2.5%	0.0%
70-74	31.0%	7.0%	3.5%	1.5%	0.0%
75-79	27.0%	7.0%	1.0%	1.0%	0.0%
80-84	21.0%	3.0%	1.0%	1.0%	0.0%
85-89	15.0%	3.0%	1.0%	1.0%	0.0%
90+	13.5%	2.5%	0.0%	0.0%	0.0%

18. Revise Service Day Elimination Period multiplier.

Prior factor: 1.41
Revised factor: 1.21

Salvage (ALR)

19. Salvage: Revise inflation type factors. Apply these to existing inflation factors.

Inflation Type	Factor
None	1.0114
Simple	0.9872
Compound	0.9739

20. Salvage: Introduce Coverage type factors

Coverage Type	Factor
LTC	0.9917
NH only	1.1395
HHC only	0.8903

Other

21. Introduce Global HHC factor

Apply a factor of 1.002 as a global claim cost type adjustment.

22. DLR- update DLR salvage factors- apply the following new product series factors to the existing <= / post 6/30/2010 factors.

<4060 product group	4060+ product group
1.035	0.808

Appendix 3 – Group GLTC 2013 Morbidity Basis Change Recommendations

Group Incidence.

New tables are adjustments to the existing hazard rates.

1. Incidence: GI Issue Year 2000+ (Factor Summary A.8)

Replace Table A.8.A with Table A.8-B.

Table A.8-A: Current Group Issue Year Incidence Factors – GI only

Policy Year	1	2	3	4	5	6	7	8	9	10
Issue Year 2000+	0.700	0.700	0.700	0.700	0.700	0.710	0.720	0.730	0.740	0.750
Policy Year	11	12	13	14	15	16	17	18	19	20+
Issue Year 2000+	0.760	0.770	0.780	0.790	0.800	0.810	0.820	0.830	0.840	0.850

Table A.8-B: Recommended Group Issue Year Incidence Factors – GI only

Policy Year	1	2	3	4	5	6	7	8	9	10
Issue Year 2000+	0.749	0.749	0.749	0.749	0.749	0.760	0.770	0.781	0.792	0.803
Policy Year	11	12	13	14	15	16	17	18	19	20+
Issue Year 2000+	0.813	0.824	0.835	0.845	0.856	0.867	0.877	0.888	0.899	0.910

2. Incidence: UW type (Factor Summary A.13)

Introduce new factors by underwriting type. applied to Group incidence.

Table A.13: Recommended Group Underwriting Type Incidence Factors

UW Type	Factor
FU	0.980
GI	1.050

3. Incidence: Attained Age (Factor Summary A.1)

Apply the following attained age adjustments to existing single life attained age hazard rates.

Table A.1-B: Recommended Adjustments by Attained Age

AA	Adj.	AA	Adj.	AA	Adj.	AA	Adj.	AA	Adj.	AA	Adj.
18-44	0.80	55	1.01	66	1.05	77	0.97	88	1.03	99	1.05
45	0.81	56	1.02	67	1.05	78	0.96	89	1.05	100	1.04
46	0.82	57	1.03	68	1.05	79	0.95	90	1.07	101	1.03
47	0.83	58	1.04	69	1.05	80	0.95	91	1.09	102	1.02
48	0.84	59	1.05	70	1.04	81	0.95	92	1.11	103	1.01
49	0.85	60	1.05	71	1.03	82	0.95	93	1.13	104+	1.00
50	0.88	61	1.05	72	1.02	83	0.95	94	1.15		
51	0.91	62	1.05	73	1.01	84	0.95	95	1.13		
52	0.94	63	1.05	74	1.00	85	0.97	96	1.11		
53	0.97	64	1.05	75	0.99	86	0.99	97	1.09		
54	1.00	65	1.05	76	0.98	87	1.01	98	1.07		

4. Incidence: Gender (Factor Summary A.14)

Apply new gender factors.

Table A.14: Recommended Group Gender Incidence Factors

Gender	Factor
Male	0.880
Female	1.060

Group Claim Termination

5. Claim termination: Incurral Age adjustment (Factor Summary AI)

Group termination tables in the current AXIS First Principle model consists of two components- (1) base termination rate, and (2) wear-off adjustments. The wear-off adjustments are removed and replaced with the new incurral age factors shown in Table **AI.2**. The "1st 5 mos" factors are for the first five months from claim incurral, and "6+ mos" are for claim durations month six and later.

Table AI.2: Recommended Group Incurral Age Termination Adjustments

Fully Underwritten			GI and Modified GI		
	months from Incurral			months from Incurral	
Incurral Age	1st 5 mos	6+ mos	Incurral Age	1st 5 mos	6+ mos
0-59	0.90	0.95	0-59	0.60	0.75
60-69	0.80	0.95	60-69	0.65	0.85
70-74	0.65	1.05	70-74	0.50	1.05
75-79	0.45	1.10	75-79	0.55	1.10
80-84	0.40	1.20	80-84	0.50	1.05
85-89	0.30	1.05	85-89	0.50	0.90
90+	0.35	1.00	90+	0.50	1.00

6. Claim termination: Gender and Underwriting Type (Factor Summary AI.1)

Current Group incidence is multiplied by the new gender and underwriting type adjustment factors shown in Table **AI.1**.

Table AI.1: Recommended Group Gender and UW Type Termination Adjustments

	months from Incurral	
Gender & UW Type	1st 5 mos	6+ mos
Male FU	1.12	1.23
Female FU	0.92	0.89
Male GI, Mod GI	1.05	1.05
Female GI, Mod GI	0.93	0.95

Group ALR Salvage

7. Global adjustment (Factor Summary K.3)

A new flat factor of 0.7 is applied to Group ALR salvage assumptions.

Group DLR Salvage

8. Recommend the same change as ALR, using a factor of 70%. The Group DLR Factor is 0.49 in the current assumptions. Therefore the 2013 BC brings the Salvage Factor to 0.343.

Other Group Changes

9. Global incidence increase of 2% due to MDB anti-selection
10. Increase Incidence by 1% due to inclusion of non-forfeiture policies in the study
11. Set policy year claim termination adjustments to 1.00. This effectively removes them.
12. Set all state loads to 1.00 except for EPA 2M, which remains at 1.04.
13. Revise IBM loads.

Current factors			
BASE-UWMTHOD = "G":			
IBMO	IBMN	EPA2M	Other
1.13	1.13	1	0.98
Fully Underwritten:			
2005 and earlier	2006 and later		
1 / .95 = 1.05263	1		

Revised factors			
BASE-UWMTHOD = "G":			
IBMO	IBMN	EPA2M	Other
1.00	1.00	1.00	1.00
Fully Underwritten:			
2005 and earlier	2006 and later		
1 / .95 = 1.05263	1		

Appendix 4 – Disabled Life Reserve Assumptions

Claim Terminations

For JH retail & Fortis, expected claim termination assumptions for Disabled Life Reserves (DLRs) are the same as those for Active Life Reserves (ALRs). For Group, current DLR & ALR assumptions are different.

For the 2013 study, we kept the same structure for JH retail and Fortis claim terminations, meaning that all recommended claim termination adjustments made to ALRs are also recommended for use with DLRs. For group, we recommend changing the current group DLR claim termination structure and assumptions to be identical to the ALR assumptions.

Salvage

Current DLR and ALR assumptions are different for all 3 lines. Both the values of the assumptions and the structure differ. We recommend continuing this difference in structure, but updating the values. Future modeling should consider making the ALR and DLR salvage assumptions the same.

The current DLR salvage and recommended new assumptions are:

	Current		Revised	
Product grouping	Incurral date <=6/30/2010	Incurral date >6/30/2010	Incurral date <=6/30/2010	Incurral date >6/30/2010
JH retail	67.3%	61.5%	64.6%	62.1%
Fortis, <4060	76.7%	74.5%	79.4%	77.1%
Fortis, 4060+	76.7%	74.5%	62.0%	60.2%
Group	49.0%	49.0%	34.3%	34.3%

The salvage analyses use a comparison of the payments made vs. the maximum payable up to 9/30/2011 for the open claim block at 9/30/2012. The maximum payable is constructed as the actual time on-claim times the Maximum Daily Benefits.

Salvage tends to become smaller with increasing duration on claim up to a point. After the end of a defined BP, it tends to get bigger, as the only way someone with, say, a 73,000 policy limit and a $100 MDB could be on claim for more than, say, 4 years, is with extremely large amounts of salvage. It is important to recognize this usage pattern in setting salvage factors that do not vary by duration on claim.

It is appealing to keep the DLR salvage factors simple, but in doing so, there is a risk that ALR and DLR assumptions may become inconsistent in the future. The DLR factors must be continually updated, as they are only intended for use over a short period of time. Shifts in the mix of claim types can quickly make these simple factors outdated, as will be shown in the Fortis section.

JH retail DLR salvage experience

Current expected salvage factors are split at 6/30/2010, the date that claim operations introduced some changes, with the key one being how Independent Care Providers were handled. These changes were assumed to reduce costs for claims reported after this date. Currently, ALR valuation assumes a 5% reduction to JH retail incidence for this. However, the changes are mostly related to salvage, so we recommend moving this from incidence to salvage on an actuarially equivalent basis. The recommended revised factor is a 4% reduction to salvage factors in ALR assumptions. This change was made for experience purposes, and was included as part of the expected salvage claims experience after 6/30/2010.

DLR assumptions handle this through the use of different salvage factors for <=6/30/2010 vs. thereafter.

DLR experience using the 2013 datasets from inception show better than expected overall experience for DLRs, but that the salvage factor developed for DLR usage for >6/30/2010 business is low:

IC date	Actual_DLR Paid ($m)	Prior salvage factor	A/E
Clm <=6/30/2010	770,282,192	67.3%	94.3%
Clm >6/30/2010	50,724,108	61.5%	104.0%
Total	821,006,300		94.8%

Note that the a/e for those incurred before or on 6/30/2010 is statistically significant, but that the 6/30/2010+ a/e is not. We felt it was appropriate to reflect some of the adverse >6/30/2010 experience and at the same time reset the >6/30/2010 factors to be in line with what we are using for ALR (a 4% salvage factor reduction). In addition, we recommend a reduction to the <=6/30/2010 factors due to the positive past experience.

IC date	Prior salvage factor	Recommended new salvage factor	A/E revised
Clm <=6/30/2010	67.3%	64.6%	98.2%
Clm >6/30/2010	61.5%	62.1%	102.9%
Total			98.5%

With these adjustments, both subcategories and the total values are within our SE requirement.

Fortis DLR salvage experience

DLR experience using the 2013 datasets from inception shows much better than expected overall experience for DLRs, with all of this better than expected experience coming from the 4060+ block.

Actual paid claims, open claim block			
Pt series	<=6/30/2010	>6/30/2010	Total
lt4060	132,280,778	10,206,193	142,486,970
4060+	89,246,126	9,495,168	98,741,294
Total	221,526,904	19,701,360	241,228,265

A/E current, no revisions			
Pt series	<=6/30/2010	>6/30/2010	Total
lt4060	101%	98%	101%
4060+	79%	77%	78%
Total	90%	87%	90%

Note that the current Fortis DLR salvage factors do not vary by product series, and were set at a time when there were far fewer 4060+ claims in the DLR Block. As time passed, more 4060+ policyholders went on claim, and the current open DLR block is made up of a much higher proportion of 4060+ claims.

The experience on the 4060+ block is very different from the <4060 block for a number of reasons, with the primary one being that the <4060 block typically pays facility benefits on an indemnity basis, meaning there is no salvage with facility usage.

Current factors are

	Current	
Product grouping	Incurral date <=6/30/2010	Incurral date >6/30/2010
Fortis	76.7%	74.5%

We recommend splitting these further by <4060 vs. 4060+ forms, increasing the above factors by 1.035 for <4060 forms and 0.808 for 4060+ forms. The revised factors are:

	Current		Revised	
Product grouping	Incurral date <=6/30/2010	Incurral date >6/30/2010	Incurral date <=6/30/2010	Incurral date >6/30/2010
Fortis, <4060	76.7%	74.5%	79.4%	77.1%
Fortis, 4060+	76.7%	74.5%	62.0%	60.2%

And the revised A/Es are:

A/E after revised factors			
Pt series	<=6/30/2010	>6/30/2010	Total
lt4060	97.4%	94.3%	97.1%
4060+	97.2%	96.0%	97.1%
Total	97.3%	95.1%	97.1%

The A/E is reset to less than 100% for the same reason as JH Retail- a higher percent of benefits is typically used over the life of a claim block. However, unlike JH retail, which shows a stable salvage percent after 2 years on claim, Fortis does not. This is likely due to the much higher proportion of lifetime benefit periods inforce for Fortis. We recognized this in developing the offset for maturation of the claim block.

Group DLR salvage experience

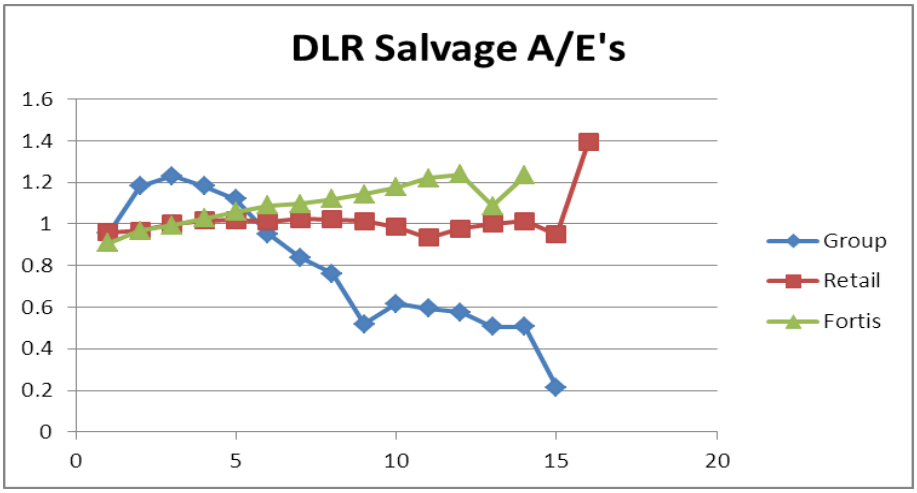
DLR experience using the 2013 datasets from inception shows much better than expected overall experience for DLRs. This is consistent with the experience seen on the ALRs.

Group DLR Salvage currently uses a factor of 49% for the salvage expectation. The following shows experience for the current open claim block by duration on claim under the current assumption and the recommended adjustment factor of 0.70 (resulting in a revised group DLR salvage factor of 0.343).

	DLR Assumptions						
Time on Claim	**Actual Paid $**	**Max $**	**Ratio**	**Expected $**	**A/E**	**Expected New $**	**A/E New**
1	41,138,796	125,596,112	33%	61,542,095	67%	43,079,466	95%
2	34,677,214	85,593,141	41%	41,940,639	83%	29,358,447	118%
3	24,078,278	57,054,179	42%	27,956,548	86%	19,569,583	123%
4	16,019,890	39,493,154	41%	19,351,645	83%	13,546,152	118%
5	10,330,417	26,909,090	38%	13,185,454	78%	9,229,818	112%
6	5,630,491	17,238,617	33%	8,446,922	67%	5,912,846	95%
7	3,386,787	11,784,823	29%	5,774,563	59%	4,042,194	84%
8	2,017,889	7,739,051	26%	3,792,135	53%	2,654,495	76%
9	1,371,484	7,718,524	18%	3,782,077	36%	2,647,454	52%
10+	3,618,877	18,644,119	19%	9,135,618	40%	6,394,933	57%
Total	**142,270,123**	**397,770,809**	**36%**	**194,907,696**	**73%**	136,435,388	104%

The new A/E is 104%. We did not adjust this to 100% because as a group claim block matures, we expect <u>less</u> usage of benefits over time.

Below is a graph which shows New DLR Salvage A/E ratios by duration on claim. It can be seen that as duration increases both JH Retail and Fortis have deteriorating salvage A/E ratios while group has A/E ratios that improve. Therefore we would expect that when we mature the GLTC Block the A/E will be less than 104%. The key reason for this improvement is that almost all group policies have 5 or less years of coverage, and claims that last a long time must have low benefit utilization.



Appendix 5 – Other Analyses

This appendix briefly outlines assumptions and recommendations not covered in the main study. Most were handled separately due to special considerations needed for the morbidity assumption being reviewed. Others are included here because of model limitations in terms of the total number of attributes that could be studied at one time. There are separate analyses for the following:

1. EP met time
2. Recovery Rates
3. Pre-Advantage
4. Maximum Daily Benefit
5. Marital Frailty Factors
6. Home Health Care Percent
7. Group IBM Factors
8. Issue Year 2004+
9. State loads
10. Riders

In more detail:

1. EP Met Time. We have factors that are applied to the EP days to determine the time-point at which benefits begin. For example, we currently expect Advantage forms with a 100 day EP to take 141 days to meet the EP (a 1.41 factor). We recommend updates to most JH retail Custom Care and later products EP met point factors from 1.00 to 1.19, and Fortis products' factor be updated from 1.41 to 1.21 instead due to the observed "EP met time" experience. We recommend no changes to EP met factors for other products.
2. Recovery Rates. The current recovery rates are the proportion of total claim terminations that are not due to death. We recommend expansion of these from varying only by duration on claim to varying by duration on claim and by incurral age for Fortis and JH retail. We recommend no change for group.
3. Pre-Advantage products. The pre-Advantage products make up <1% of inforce business. This business currently uses Gold Select series assumptions times a global claim cost adjustment of 1.25. Based on experience, we recommend changing this adjustment from 1.25 to 1.05.
4. Maximum Daily Benefit (MDB). MDBs were not included as an attribute or weight in the main 2013 study of incidence and claim terminations, but have a risk of differential usage by MDB. We studied this risk and recommend loading incidence by 1.5% for JH retail, 1.9% for Fortis, and 2.0% for Group.
5. Marital Frailty Factors. These are adjustments that recognize that the very good morbidity associated with being married at the time of issue will trend toward single life morbidity due to other causes besides the death of one of a couple. Recommended updates to the other marital assumptions cause the net effect of these factors to become much higher than single life factors. We recommend revisions to these marital frailty factors at ages above 90 to keep this relationship stable.
6. Home Health Care Percent (HHC%). The amount of HHC chosen relative to the facility MDB was not included as an attribute in the main 2013 study. There is a risk of differential usage by those with different HHC amounts and also a risk of shifts in the HHC coverage amounts as the product

mix changes. We studied this and recommend judgment and experience-based loads of +0.3% for JH retail, +0.2% for Fortis, and no change for group.

7. Group IBM factors. The main 2013 study excluded business issued on a GI basis to relatives of IBM employees (mostly GI spousal business). We currently have a 1.13 load applied to all IBM GI business, a 1.0 factor applied to EPA2M business, and a 0.98 factor applied to all other GI business. Experience has improved markedly for this block, and based on the current trend, we recommend that these adjustments be removed. (replace the 1.13 with 1.00; 1.0 stays at 1.0; replace 0.98 with 1.00).
8. Issue Year Band. One area of concern with the current assumptions is 2004+ issue year business factors, which recognized good experience for this block using factors starting at 0.766 going up to an ultimate of 0.883 by duration 20 from issue. Experience does not indicate a need to update these factors.
9. Loads for mandated benefits. We did not include expected costs for mandated additional jurisdictional benefits in our expectations in the main 2013 study, but did include these differences in the actual benefits. Therefore, adjustments on aggregate a/e ratios will implicitly include these costs, so expected jurisdictional loads are largely not needed going forward, and we recommended removal of most of these for valuation purposes. Re-rating should consider these.
10. Riders. We are recommending no changes to any rider factors. However, riders are important, especially for JH retail and group. Fortis has far fewer riders and most have been issued since 2000, so we did not study the riders' experience for the Fortis block. A rider analysis needs to consider "mechanical" vs. other costs such as those occurring because of behavioral differences.
    a. JH retail Sharedcare (24% of inforce). Experience has been positive for this rider, but interactive effects with marital status, gender, and product make it difficult to isolate the amount attributable to the rider itself. As more experience accumulates, we should consider this as a separate attribute.
    b. JH retail Home Care EP Waiver of Premium (19% of inforce). We chose to exclude all policies with this rider from the main 2013 study and look at them separately. We have observed a very high incidence a/e, which is offset by very high claim termination a/e and a low salvage a/e. The net effect of these appears to indicate that the load for this rider could be reduced, but that it is too early to take such an action.
    c. JH retail, Other riders (each is <6% of inforce). We analyzed the other JH retail riders. For the ones with the greatest amount of inforce, the rider loads continue to be needed. For some of the other smaller ones, the rider load may be redundant. However, each of these makes up <1% of inforce, so rather than changing rider loads, we recommend no change for any of these.
    d. Group Riders and Ancillary benefits. Most group business includes Return of Premium (RoP), Restoration of Benefits (RB), and/or Nonforfeiture (NF) benefits as part of the contract, either as a built-in benefit for the client or as a rider. We treated RoP as out of scope. We determined that the existing RB and NF loads should continue.

Each of these items is covered in much more detail in the following (the 1st covers non-rider adjustments; the 2nd is a review of riders):

2013 Long Term Care Morbidity Study.

2013 Long Term Care Morbidity Study.

rider glossary.doc

Nationwide Loss Ratio Exhibit
Care Choice (P-FACE(2002-2))

		Original Assumptions			Certified Experience and Projections			2015 Experience and Projections Before Proposed Increase without Margins for MAE		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1988	-	-	-	-	-	-	-	13,818	0%
	1989	-	-	-	-	-	-	-	21,913	0%
	1990	-	-	-	-	-	-	-	208,922	0%
	1991	-	-	-	-	-	-	-	642,881	0%
	1992	-	-	-	-	-	-	-	833,221	0%
	1993	-	-	-	-	-	-	134	991,912	0%
	1994	-	-	-	-	-	-	-	1,864,540	0%
	1995	-	-	-	-	-	-	-	2,925,155	0%
	1996	-	-	-	-	-	-	12,665	3,371,808	0%
	1997	-	-	-	-	-	-	-	3,861,964	0%
	1998	-	-	-	-	-	-	-	4,095,544	0%
	1999	-	-	-	-	-	-	-	5,000,072	0%
	2000	-	-	-	-	-	-	-	6,333,535	0%
	2001	-	-	-	-	-	-	-	6,960,988	0%
	2002	-	-	-	-	-	-	-	7,911,777	0%
	2003	509,636	4,845,050	11%	360,394	4,744,318	8%	6,454	13,750,467	0%
	2004	1,673,263	17,363,179	10%	1,358,943	15,990,818	8%	1,783,644	37,936,848	5%
	2005	3,204,184	32,286,572	10%	3,748,919	31,452,962	12%	5,763,357	40,683,914	14%
Historical	2006	5,252,667	49,737,743	11%	5,731,020	47,736,492	12%	6,646,734	60,257,833	11%
Experience	2007	7,698,354	71,433,138	11%	7,196,738	70,643,615	10%	7,713,359	90,416,518	9%
	2008	11,310,542	100,728,070	11%	11,406,800	102,924,949	11%	13,925,013	129,455,072	11%
	2009	16,001,529	132,047,975	12%	15,556,986	130,515,426	12%	17,080,052	128,101,000	13%
	2010	21,770,846	161,765,338	13%	20,898,158	137,935,710	15%	18,237,144	155,130,177	12%
	2011	26,501,041	170,064,912	16%	23,168,954	149,913,471	15%	24,516,433	155,960,810	16%
	2012	30,899,526	170,405,024	18%	25,101,280	157,128,732	16%	31,155,792	162,381,317	19%
	2013	34,836,482	167,680,808	21%	27,499,564	161,156,079	17%	31,468,380	188,756,163	17%
	2014	39,106,732	163,539,147	24%	30,325,163	163,766,364	19%	35,292,728	189,328,204	19%
	2015	44,228,702	161,758,945	27%	33,541,896	161,565,615	21%	46,562,193	190,966,910	24%
	2016	49,397,673	157,106,737	31%	37,144,617	158,103,359	23%	46,638,263	189,328,627	25%
	2017	54,401,435	151,404,073	36%	41,273,899	154,237,594	27%	52,302,456	186,176,317	28%
Projected	2018	59,347,573	145,882,536	41%	46,113,061	150,167,096	31%	58,668,677	181,819,933	32%
Future	2019	64,375,235	140,452,085	46%	51,556,434	146,173,892	35%	65,885,129	177,620,137	37%
Experience	2020	69,750,293	135,101,163	52%	57,601,688	142,218,695	41%	73,877,462	173,525,822	43%
	2021	75,579,486	129,779,641	58%	64,239,111	138,265,009	46%	82,792,775	169,498,371	49%
	2022	81,733,464	124,496,299	66%	71,815,882	134,271,989	53%	92,841,198	165,491,781	56%
	2023	88,295,204	119,242,055	74%	80,946,693	130,200,907	62%	104,189,868	161,458,762	65%
	2024	95,269,409	114,014,082	84%	91,373,820	126,025,092	73%	116,688,226	157,363,262	74%
	2025	102,593,448	108,820,337	94%	102,568,617	121,729,004	84%	130,296,807	153,170,176	85%
	2026	110,198,331	103,660,401	106%	114,260,960	117,305,695	97%	145,114,748	148,849,155	97%
	2027	118,041,368	98,537,013	120%	126,788,644	112,753,107	112%	161,184,562	144,372,929	112%
	2028	126,018,477	93,454,094	135%	140,484,914	108,074,072	130%	179,292,355	139,714,975	128%
	2029	134,060,723	88,417,685	152%	154,842,612	103,277,093	150%	199,218,451	134,842,664	148%
	2030	142,088,692	83,433,868	170%	168,786,717	98,374,255	172%	219,903,934	129,740,117	169%
	2031	150,018,756	78,509,185	191%	181,688,414	93,381,221	195%	241,178,574	124,404,599	194%
	2032	157,786,811	73,651,121	214%	194,532,810	88,318,079	220%	262,528,888	118,840,048	221%
	2033	165,309,738	68,871,829	240%	208,118,970	83,211,816	250%	283,297,675	113,057,378	251%
	2034	172,502,114	64,185,896	269%	221,988,117	78,091,868	284%	303,252,238	107,076,215	283%
	2035	179,225,217	59,606,855	301%	234,067,599	72,985,435	321%	321,997,596	100,925,829	319%
	2036	185,297,664	55,148,077	336%	243,279,191	67,918,155	358%	339,013,750	94,646,872	358%
	2037	190,493,413	50,821,964	375%	251,222,854	62,916,111	399%	353,193,703	88,290,322	400%
	2038	194,680,492	46,645,051	417%	259,090,899	58,009,354	447%	363,848,962	81,914,375	444%
	2039	197,798,142	42,633,808	464%	266,631,154	53,229,109	501%	371,837,520	75,578,820	492%
	2040	199,672,763	38,801,762	515%	271,100,368	48,601,859	558%	377,147,017	69,342,087	544%
	2041	200,191,245	35,161,165	569%	271,701,791	44,148,013	615%	379,451,022	63,260,275	600%
	2042	199,425,886	31,719,694	629%	270,465,718	39,887,741	678%	378,422,829	57,382,379	659%
	2043	197,444,202	28,484,917	693%	268,962,258	35,845,416	750%	374,085,727	51,752,673	723%
	2044	194,359,795	25,463,677	763%	267,411,315	32,041,308	835%	367,158,007	46,405,809	791%
	2045	190,002,213	22,660,653	838%	263,153,723	28,484,869	924%	358,241,385	41,367,799	866%
	2046	184,418,185	20,075,581	919%	256,040,874	25,180,140	1017%	347,156,827	36,659,678	947%
	2047	177,888,850	17,704,556	1005%	246,804,756	22,131,191	1115%	333,841,617	32,296,543	1034%
	2048	170,667,603	15,542,106	1098%	235,625,171	19,338,643	1218%	318,833,352	28,285,578	1127%
	2049	162,973,436	13,582,873	1200%	222,942,470	16,797,482	1327%	302,716,858	24,626,455	1229%
	2050	154,640,122	11,819,808	1308%	208,957,366	14,498,913	1441%	285,636,531	21,312,841	1340%
	2051	145,784,758	10,243,205	1423%	195,200,046	12,431,012	1570%	267,251,125	18,335,126	1458%
	2052	136,651,206	8,840,015	1546%	180,266,348	10,582,387	1703%	247,966,772	15,680,287	1581%
	2053	127,456,837	7,596,683	1678%	163,561,658	8,943,219	1829%	228,883,804	13,331,791	1717%
	2054	118,257,852	6,502,590	1819%	146,963,335	7,501,831	1959%	209,760,048	11,269,392	1861%
	2055	108,944,465	5,545,564	1965%	132,761,537	6,244,769	2126%	191,152,868	9,470,921	2018%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	284,042,001	1,700,247,214	16.7%	243,459,063	1,618,188,191	15.0%	282,336,827	1,981,908,891	14.2%
	Future :	2,608,072,723	1,741,865,729	149.7%	3,028,939,547	1,916,432,355	158.1%	4,132,351,868	2,443,812,737	169.1%
	Lifetime :	2,892,114,725	3,442,112,943	84.0%	3,272,398,610	3,534,620,546	92.6%	4,414,688,695	4,425,721,627	99.8%

American Academy of Actuaries

Issue Brief

JUNE 2016

KEY POINTS:

Private LTCI is complex—a policyholder is essentially paying today for a varied range of care he or she may or may not need years, if not decades, into the future.

Insurers are gradually learning through their claims experience what the actual levels of benefits are and will be.

A means for taking corrective action to accommodate the changing future is important.

Understanding Premium Rate Increases on Private Long-Term Care Insurance Policyholders

America faces a great public need in addressing long-term care (LTC) financing, and that need is growing even more critical because the population is aging. There can be substantial costs for LTC services and supports, and for elderly Americans and their families, finding ways to pay for those services and supports can be challenging. According to the U.S. Department of Health and Human Services, about half of Americans turning 65 today will need LTC; one in seven adults will need care for more than five years; and one in six will spend at least $100,000 for future LTC.[1]

Private LTC insurance (LTCI) is an option for financing future LTC needs; however, it is often considered cost-prohibitive by many potential consumers. In particular, in recent years, LTC[2,3] has gotten a lot of attention because of the relative size and frequency of premium rate increases. The American Academy of Actuaries' Long-Term Care Reform Subcommittee has developed this issue brief to enhance understanding of what is leading to significant rate increases, examine how the need for a rate increase is determined, discuss the effects of increases on various stakeholders, and explore alternatives to premium rate increases.

1 *Long-Term Services and Supports for Older Americans: Risks and Financing Research Brief*, Office of the Assistant Secretary for Planning and Evaluation; U.S. Department of Health and Human Services, February 2015.

2 Many LTCI policies include a "guaranteed renewable" contractual provision requiring an insurance company to offer to renew these policies, but the insurance company may do so with a premium rate increase only on a class basis.

3 Some states include short-term care insurance (which generally provides similar coverage to LTC, but for shorter benefit periods, typically for a year or less) under the classification of long-term care insurance. For clarity, this issue brief is not intended to address such short-term care insurance.

American Academy of Actuaries
Objective. Independent. Effective.™

1850 M Street NW, Suite 300
Washington, DC 20036
202-223-8196 | www.actuary.org

© 2016 American Academy of Actuaries. All rights reserved.

Factors Affecting LTCI Premium Increases

Private LTCI is complex—a policyholder is essentially paying today for a varied range of care he or she may or may not need years, if not decades, into the future. As such, LTCI requires a long projection period, with some policyholders receiving benefits beyond age 100. Therefore even for the average issue age of 57, policy projections require assumptions for more than 50 years into the future. The future period is even longer for younger policyholders. Further, calculating premiums relies on a number of assumptions for variables such as:

- mortality;
- voluntary lapses;
- interest rates; and
- morbidity, including
    - incidence of disabilities requiring LTC services;
    - recoveries and mortality while on claim;
    - benefit expiry;
    - service inflation costs of covered services relative to inflation protection assumptions; and
    - the amount of services required while disabled (for policies that reimburse actual expenses).

In addition, there has been and continues to be a high level of uncertainty and change in circumstances that affect the level of sufficient premium rates, such as:

- changing pattern of service/care providers (e.g., growth of assisted living facilities and continuing care retirement communities, access to home care services that are covered by LTCI);
- changing medical practice (e.g., criteria for diagnosis of Alzheimer's disease and other cognitive impairments);
- effects of mortality improvement in the population, leading to more older age benefits and longer stays for a given age;
- changes in family composition and availability of caregivers, leading to fewer supports for care at home;
- lower investment income, a crucial consideration for a financial instrument that must accumulate large reserves over many decades to prefund the high cost of services that occur at advanced ages; and
- limited available data under existing LTCI coverage beyond 20 policy years for advanced ages, where morbidity tends to be substantially different from general population data due to the characteristics of those who purchase insurance.

If not for the ability to adjust premiums to better reflect actual experience, carriers would not have offered this type of insurance product. Without LTCI, many more people would exhaust their savings on care costs and then rely on public programs such as Medicaid for their additional care needs.

Often, examining adverse experience from older policy form blocks provides valuable insights that may be applicable to newer blocks. After reviewing the adverse experience, insurers may need to change projection assumptions used for the newer policy forms. The revised projections could identify a need for a premium rate increase. It is important to note that even though adverse experience has not developed yet for a newer block, the revised expected future benefits may be higher for that newer block than previously expected. Recognizing the need to fund the higher expected future benefits for the newer block comes in the form of a premium rate

Members of the Long-Term Care Reform Subcommittee include: P.J. Eric Stallard, MAAA, ASA, FCA, chairperson; Bruce Stahl, MAAA, ASA, vice chairperson; Mark Billingsley, MAAA, FSA; Dave Bond, MAAA, FCA, FSA; Michael A. Boot, MAAA, FSA; Malcolm A. Cheung, MAAA, FSA; Robert W. Darnell, MAAA, ASA; Timothy D. Gustafson, MAAA, FSA; Clark Heitkamp, MAAA, FSA; David E. Kerr, MAAA, ASA; Perry Kupferman, MAAA, FSA; Brad S. Linder, MAAA, ASA; Jamala Murray, MAAA, FSA; David Plumb, MAAA, FSA; Zenaida Samaniego, MAAA, FSA; Steven W. Schoonveld, MAAA, FSA; Sara Teppema, MAAA, FCA, FSA; Matthew Winegar, MAAA, FSA; and Ali Zaker-Shahrak, MAAA, FSA.

increase. Actuaries will then communicate the amount of premium rate increases along with their assumed implementation timing to state insurance departments. Both the increase and its associated implementation timing are very important. Deferring implementation of a needed rate increase is detrimental because waiting to implement the rate increase will not start the accumulation of the needed increased premium to fund the higher expected benefits, resulting in the need for a further increase. The effect on consumers is that deferrals generally lead to the need for a higher rate increase than originally calculated.

When original LTCI policy forms were issued in the 1980s and '90s, often morbidity assumptions were based upon general population statistics, and lapse and mortality assumptions upon experience of non-LTC insurance products. Not only did the insured population behave differently than the general population, but improvements in medical diagnostic practices and services and a large increase in the use of assisted living facilities helped increase (1) the number of individuals surviving to ages where the levels of disability are higher, leading to higher claim rates per insured; and (2) the survival time following the onset of disability.

Insurers are gradually learning through their claims experience what the actual levels of benefits are and will be; nonetheless, they still do not yet have a complete basis for assessing the ultimate levels of claims to be paid at advanced ages and later policy durations, nor how these levels might change over time. Insurers will continue to use existing information to estimate these ultimate claim levels and may need to raise premium rates further as more insured life experience develops or if there are unfavorable changes in benefit usage in the future.

Differences Between Current and Past LTCI Policies

There are significant differences in the pricing characteristics for LTCI policies issued in the past, especially more than a decade ago, compared to policies being issued today and what is expected going forward. The possibility of a future rate increase, at any point in time, is a function of the confidence level in the underlying assumptions and risks associated with these assumptions. With more conservative assumptions, more data to support those assumptions, key assumptions approaching their absolute limits (e.g., ultimate lapse rates approaching zero), and higher explicit margins, it is likely that the probability of rate increases on the current generation of LTCI policies will be lower than the probability of rate increases on previous generations. Future changes in the underlying morbidity, mortality, policyholder behavior, provider behavior, or regulations could alter this likelihood, yet statistical analyses on the experience are helpful when applying historical results to future projections.

A recent presentation[4] of the likelihood of future rate increases on policies issued in 2014 versus policies issued in 2007 and 2000, based on a survey of insurers writing business in 2000, 2007, and 2014, found the following:

- Barring the potential changes mentioned above, and using the same projection model for each time period, the risk of a future rate increase issued in 2014 (using 2014 assumptions) is only one-quarter that of the risk on business issued in 2000 (using 2000 assumptions), and only one-third that of the risk on business issued in 2007 (using 2007 assumptions).
- The primary reasons for this improved expectation of future premium stability are the substantially greater insured experience behind each successive set of assumptions, the significantly lower future downside risk of most assumptions, and an increase in the margins for adverse experience.

4 Stephen Douglas Forman, James M. Glickman, and Roger Loomis, "LTCI New Business Pricing - How Safe Is It?," Society of Actuaries Annual Meeting, October 11-14, 2015.

- Amount of data increased 16-fold from 2000 to 2014.
- Claims data for ultimate experience (e.g., durations 10 and beyond) at attained ages over 80 increased 70-fold from 2000 to 2014.
- Ultimate voluntary lapse rate assumptions decreased from 2.8 percent in 2000 to 0.7 percent in 2014. This leaves very little room for future adverse deviations from lower voluntary lapse rates.
- Best estimate ultimate claim costs in the year 2000 were estimated at 70 percent of the recently released 2000-2011 SOA LTC Experience Study.[5] The corresponding best estimate ultimate claim costs used for 2014 pricing were 108 percent of that SOA LTC Experience Study.
- Ultimate mortality being used in 2014 pricing is 72 percent of the mortality assumption used in 2000.
- Investment portfolio rates were assumed to be 6.4 percent for every future year of a policy issued in 2000, while they are now assumed to be 4.6 percent for every future year of a policy issued in 2014.

• As a consequence of the above, the average policy premiums (for the same benefits) increased to 215 percent of the year 2000 premiums by 2014.

Determining the Need for Premium Rate Increases

In determining whether LTCI policies require a premium rate increase, two authorized methods are applied—one for policies subject to minimum loss ratio certifications and one for a rate stability certifications.

Historically, LTCI pricing was subject to a 60 percent minimum loss ratio (MLR) by most states, meaning that the ratio of the present value of lifetime claims to premiums could not fall below 60 percent. Beginning in the early 2000s, many states enacted rate stability laws, which stated that LTCI should be priced without using the MLR approach. Instead actuaries would need to certify that the premium rates had enough margin to withstand moderately adverse experience (MAE).

Under the MLR approach, if an insurer demonstrates that revised historical and future projected experience produces a lifetime loss ratio greater than 60 percent (or the originally priced-for loss ratio), a premium rate increase could be filed that would allow the projected experience on the policies to return to that lifetime loss ratio.

Under the rate stabilization approach, a premium rate increase could be requested if actual past experience combined with projected future experience exceeds the original or previously defined MAE margin. If revised projections using updated experience exceed the MAE margin, then a premium rate increase could be filed such that the lifetime loss ratio on the original premiums is assumed to be the greater of 58 percent and the original assumed loss ratio; and the lifetime loss ratio on the increased premiums is at least 85 percent (with claims projected into the future including MAE). For this premium rate increase filing, the amount of premium rate increase needs to be large enough for the insurer's designated actuary to certify that the premiums are sufficient with no further premium rate increases in the future unless the actual experience exceeds a revised MAE margin.

5 Society of Actuaries, *Long Term Care Intercompany Experience Study – Aggregate Database 2000-2011 Report*, January 2015.

Under either approach, the need for a premium rate increase should be driven by projected lifetime loss ratios also, rather than actual past experience alone. Despite the relatively straightforward mathematical calculations to determine premium increases, determining projection assumptions (e.g., whether actual historical experience is sufficiently credible to justify changes in future projected assumptions) can be difficult.

Some assumptions have a higher degree of credibility earlier in the life of a policy than others. For example, policy lapses are more likely to occur in the earlier years of the policy, and claim submissions are more likely to occur in later policy years. As such, actual lapse experience develops a higher degree of credibility in the earlier years of the business while actual claim experience has a lower degree of credibility in the earlier years of the business.

With LTCI it can take a long time from the purchase of a policy until the first time a claim is submitted, and this time period can be several decades for many individual policies. As such, there is often little claims experience to justify premium rate increases on a relatively young group of policy forms based on the experience of those forms alone. Section 3.2.1 of Actuarial Standard of Practice No. 18, *Long-Term Care Insurance*, requires actuaries to use alternative data sources such as public data or experience from the insurance company's older, similar policy forms for identifying reasonable assumptions.[6] Waiting until there is adequate claim information on each policy form could result in much larger, less affordable rate increases.

Filing and Approval Process

The rate increase process can vary across state jurisdictions, and can be time-consuming. While a company prepares the same initial rate increase filing in each jurisdiction, the filings are addressed differently by many states. Each state/jurisdiction approval includes unique conditions. Approvals are often for different amounts, which sometimes may not be at an adequate level as determined by the company, with different administrative implementation rules and time frames for that approval to be effective.

Larger rate increase requests may experience delays in approval within a state, and depending on the time taken in the approval process might mean the insurer does not receive approval in the year filed, and for that missed year will need to be made up in later years, in the form of an even higher premium rate for that state. Similarly, if a state approves less than the needed increase, carriers will likely request additional increases to make up for the expected shortfall. Thus, the cumulative amount of the increase could be larger than the original request in that state.

It would be necessary to develop steps to improve the filing and approval process that consider regulatory requirements found in state laws and regulations, including:

- An insurer's thorough review signed by an actuary with LTCI experience identifying deterioration and migration from each of the initial pricing assumptions;
- Predesigned rules or guidelines for increase approval that take into account the necessary total increase or an implementation plan for a series of preferred rate increases;

6 Actuarial Standards Board, Actuarial Standard of Practice No. 18, *Long-Term Care Insurance*, January 1999.

- Preset benefit reduction options that will be offered to policyholders in their effort to maintain the same premium level;
- Standardized dates and methods of implementing the rate increases nationally; and
- Seeking greater ability through enhanced standards at the Interstate Compact for premium rate increase approvals.[7]

The Effects of Premium Rate Increases

LTCI premium rate increases may not align the premiums with the future benefits as well as one might otherwise expect because individual behavior may not align with predictions. There are several reasons for this.

First, an insurer may offer an opportunity to reduce benefits in order to keep the premium dollars a policyholder pays roughly equivalent after the premium rate increase versus before (e.g., reducing the daily maximum benefit). When offered, policyholders may select benefits that better match their current/anticipated health care needs. For example, many policyholders are in the position where they have higher maximum daily benefits than actual current cost of services because the policyholders originally purchased inflation coverage[8] to meet expected inflation needs but actual inflation turned out to be lower. A policyholder who has coverage limits significantly higher than the actual cost of LTC services may reduce their daily maximum coverage such that the premiums do not change and the new maximum benefit levels continue to remain higher than the actual cost of services. Similar examples may exist for lapsing of particular riders or other benefit options.

Second, many states' regulations require that a nonforfeiture benefit be given in lieu of lapse to those who cease paying premiums and whose cumulative premium rate increases exceed a specific percentage based on the issue age of the policyholder. The nonforfeiture benefit is a paid-up benefit with a total policy limit that equals the premiums paid to date (less any claims paid), and payable according to the benefits of the policy had it not ceased to be premium-paying upon implementation of a premium rate increase. The insurer maintains a reserve for these remaining paid-up benefits. While this remaining nonforfeiture reserve is lower, the company will have a harder time monitoring residual benefits in cases in which there is a significant reduction in policyholder contact and no incentive to report an insured's death.

Finally, the policyholders who choose to lapse their policies or reduce their benefits may be the healthier policyholders, leaving the remaining pool of policyholders with higher average expected claims. Ideally, and to the extent the experience is credible, the morbidity experience following a premium rate increase should be compared to the morbidity of similar policies without a premium rate increase.

Alternatives to a Premium Rate Increase

Insurers have routinely allowed insureds to reduce coverage by changing typical benefit options in order to help offset some or all of a rate increase. In recent years, in an effort to enable policyholders faced with a rate increase to retain significant coverage, some companies have started making available an option for policyholders to avoid the rate increase and keep their same premium by reducing the size of the future benefit increases for plans with automatic built-in inflation increases.

For example, policyholders would be able to keep their accrued benefit at their current inflation rate and only the future increases are lower

7 The Interstate Insurance Product Regulation Compact allows member states to establish standards for long-term care insurance, among other insurance products. These insurance products are governed by the Interstate Insurance Product Regulation Commission (IIPRC), where there is a limited ability to control rate increases through reviews of rate filing standards.

8 A popular inflation option selected by policyholders was the 5 percent option because states required LTC applicants to sign that they rejected this option, which often led to applicants selecting the 5 percent option. This inflation option turned out to be higher than actual LTC cost increases, leaving many policyholders with more coverage than needed.

than they would otherwise be. This is most effective as a conservation tool if it is done on an actuarially equivalent basis, meaning that the new prospective inflation accrual is set so that the present value of the expected reduction in benefits over time will be equal to the present value of the premium increase that is forgone. This is in contrast with most benefit reductions, which are in essence "partial surrenders" where there may be a reduction in the insurer's liability.

When insureds reduce their benefits to help offset a rate increase, an insurer would expect some adverse selection—meaning that the healthier insureds are the ones reducing their benefits and thus the experience on the block will likely worsen over time. With the approach described above, there may be less adverse selection involved because the benefit reductions are gradual and may not become significant for many years.

In the past relatively few insureds have chosen to lapse their policies when premiums were increased and alternatives to the increase were offered. According to a 2010 report from Gen Re (a reinsurance company) based on an industry survey, lapses at the time of a rate increase were only higher than normal by 2.5 percent of the total policies exposed to an increase.[9] The low 2.5 percent extra lapse rate suggests that the increases were generally affordable for the vast majority of policyholders, which is likely due to LTC insurance purchasers being in the higher income and asset demographics than non-purchasers.

Conclusion

Predicting future policyholder and service provider behavior can be difficult. A means for taking corrective action to accommodate the changing future is important. The more conservative assumptions in today's pricing of private LTCI and improved speed at taking corrective action should improve future projections, resulting in fewer and smaller rate increases.

9 The context for the premium rate increases at the time of the survey included: a low-interest-rate environment, generally lower-than-anticipated lapses and mortality, an average rate increase of about 25 percent in the survey, and premium price points that were generally at or below what policyholders could purchase at their attained ages.

John Hancock 2016 Inforce Rate Increase Filings Care Choice

State	2015 Policy Counts	2015 Annualized Premium	2010 Filing		2016 Filing				
			Approved Date	Approved Avg. RI %	Requested Avg. RI %	2016 Filing Status	Approved Date	Approved Avg. RI %	Notes
AK	77	123,993	11-Feb-11	44.8%	15.8%	Approved	27-Jul-17	15.8%	
AL	38	51,721	2-Feb-11	44.8%	15.8%	Filed			
AR	45	47,448	No approval	0.0%		Not yet filed			
AZ	293	290,155	No file	44.8%	15.8%	Approved	23-Dec-16	15.8%	Exempt from filing
CA	14,521	16,017,348	No approval	0.0%	55.0%	Filed			
CO	807	1,174,775	6-Jul-11	39.7%	20.0%	Not yet filed			
CT	405	441,859	No approval	0.0%	66.1%	Approved	27-Jun-17	15.0%	15% Cap, no landing spots**
DC	1,452	2,050,863	21-Jun-12	44.8%		Not yet filed			
DE	552	907,202	14-Jun-12	44.8%	17.7%	Approved	10-Mar-17	17.7%	
FL									No certificate holders
GA	26,330	26,783,743	26-Jun-12	30.7%	28.2%	Approved	14-Apr-17	15.0%	15% Cap, no landing spots**
HI	2,499	1,722,401	27-Mar-12	44.8%	17.3%	Filed			
IA	3,412	3,783,012	17-Nov-11	31.3%	27.7%	Approved	23-Aug-17	15.8%	15% Cap for FPO, full approval for ABI**
ID	111	110,335	18-Apr-11	44.8%	15.8%	Approved	4-May-17	15.8%	
IL	9,012	10,400,585	6-May-11	44.8%	18.4%	Approved	15-Dec-17	18.4%	
IN	886	1,198,231	No approval	0.0%		Not yet filed			
KS	477	138,657	11-Oct-11	31.3%	26.2%	Filed			
KY	428	644,456	25-Jul-11	31.3%	27.3%	Approved	16-Jun-17	27.3%	
LA									No certificate holders
MA	7,753	11,663,402	No file	44.8%	15.8%	Approved	24-Jan-17	15.8%	Exempt from filing
MD									No certificate holders
ME	83	97,098	26-Sep-11	44.8%		Not yet filed			
MI	9,126	11,230,360	18-Apr-11	44.8%	15.8%	Approved	13-Feb-17	15.8%	
MN	3,204	4,608,805	26-Sep-11	44.8%	17.1%	Approved	15-Dec-17	17.1%	15% cap phase-in
MO	7,049	7,634,599	28-Dec-12	44.8%	18.8%	Approved	1-Sep-17	18.8%	
MS									No certificate holders
MT									No certificate holders
NC	831	895,147	2-Jun-11	44.8%	16.1%	Approved	5-Mar-18	16.1%	
ND									No certificate holders
NE	505	461,865			58.6%	Approved	18-Sep-17	58.6%	All certificate holders issued after 2010 RI
NH	188	331,274	9-Jun-11	44.8%	16.1%	Approved	26-Jul-17	16.1%	
NJ	5,663	7,526,962	No file	44.8%	15.8%	Approved	2-Mar-17	15.8%	Exempt from filing
NM	1,466	1,614,201	No approval	0.0%	66.1%	Filed			
NV	127	101,232	No approval	0.0%	66.1%	Approved	26-Jul-17	66.1%	3-year equal phase-in
NY	16,013	24,290,003	9-Oct-13	5.0%	58.1%	Approved	6-Dec-17	5.0%	5% Cap, no landing spots**
OH	3,194	3,574,168	15-Mar-11	44.8%	15.8%	Approved	1-May-17	15.0%	15% Cap**
OK	507	591,535	26-Aug-11	39.1%	20.1%	Approved	2-Jun-17	10.0%	10% Cap, no landing spots**
OR	305	392,679	14-Feb-12	44.8%	17.1%	Approved	24-Sep-17	17.1%	
PA	4,305	6,668,427	17-Feb-11	44.8%	15.8%	Approved	27-Apr-17	15.8%	
RI	33	35,743	25-Mar-13	36.3%	25.0%	Filed			
SC	572	757,803	6-Jul-11	36.3%	22.6%	Approved	3-Jul-17	18.0%	20% cap**
SD									No certificate holders
TN									No certificate holders
TX	21,228	27,460,282	19-Sep-12	44.8%	18.1%	Approved	7-Apr-17	18.1%	
UT	103	132,635	7-Apr-11	44.8%	15.8%	Approved	14-Jun-17	15.8%	
VA	5,382	6,472,385	3-Feb-12	44.8%	17.1%	Filed			
VT									No certificate holders
WA	1,673	2,433,640	31-Aug-11	39.6%	15.5%	Filed			
WI	681	808,484	27-Apr-11	44.8%	15.8%	Approved	1-Sep-17	15.8%	
WV									No certificate holders
WY									No certificate holders

*** states that approved capped amounts were done so with the understanding that John Hancock would be re-filing for any unapproved amounts, as well as an additional cost of delay, such that the rate increases requested will be actuarially equivalent among states*

John Hancock 2016 Inforce Rate Increase Filings GPB-COV-0002

State	2015 Policy Counts	2015 Annualized Premium	2010 Filing		2016 Filing				
			Approved Date	Approved Avg. RI %	Requested Avg. RI %	2016 Filing Status	Approved Date	Approved Avg. RI %	Notes
AK			11-Feb-11	3.8%					No certificate holders
AL									No certificate holders
AR									No certificate holders
AZ									No certificate holders
CA	536	1,066,011	No approval	0.0%	11.8%	Filed			
CO	591	443,274	6-Jul-11	3.8%	20.0%	Not yet filed			
CT	1,244	1,188,846	No approval	0.0%	11.8%	Approved	27-Jun-17	11.8%	Flat 11.8%
DC									No certificate holders
DE									No certificate holders
FL									No certificate holders
GA	769	758,775	No certif. impacted		8.4%	Approved	14-Apr-17	8.4%	
HI									No certificate holders
IA									No certificate holders
ID									No certificate holders
IL	3,219	2,726,687	No certif. impacted		8.4%	Approved	30-Oct-17	8.4%	
IN	228	129,077	No certif. impacted			Not yet filed			
KS									No certificate holders
KY									No certificate holders
LA	10	10,337	No certif. impacted		8.4%	Approved	2-Oct-17	8.4%	
MA	1,438	2,083,124	No file	3.8%	8.4%	Approved	24-Jan-17	8.4%	Exempt from filing
MD	7,989	8,540,484	No approval		10.8%	Approved	16-Jan-18	10.2%	Cap 3-year phase-in**
ME									No certificate holders
MI	543	619,545	No certif. impacted		8.4%	Approved	13-Feb-17	8.4%	
MN									No certificate holders
MO	977	784,866	No certif. impacted		8.4%	Approved	18-Sep-17	8.4%	
MS									No certificate holders
MT									No certificate holders
NC	2,596	3,169,301	2-Jun-11	3.8%	8.4%	Approved	5-Mar-18	8.4%	
ND									No certificate holders
NE									No certificate holders
NH									No certificate holders
NJ									No certificate holders
NM									No certificate holders
NV									No certificate holders
NY	2,798	3,752,128	9-Oct-13	0.3%	10.6%	Filed			
OH									No certificate holders
OK									No certificate holders
OR									No certificate holders
PA	46	40,996	No certif. impacted		8.4%	Approved	27-Apr-17	8.4%	
RI									No certificate holders
SC									No certificate holders
SD									No certificate holders
TN									No certificate holders
TX									No certificate holders
UT	81	61,458	No certif. impacted		8.4%	Approved	14-Jun-17	8.4%	
VA	940	1,065,000	No certif. impacted		8.4%	Filed			
VT									No certificate holders
WA	1,988	2,655,700	31-Aug-11	1.7%		Not yet filed			Can't request due to WA Regulation WAC 284-60-050
WI	780	572,811	No certif. impacted		8.4%	Approved	1-Sep-17	8.4%	10% in year 1, remainder in year 3
WV									No certificate holders
WY									No certificate holders

*** states that approved capped amounts were done so with the understanding that John Hancock would be re-filing for any unapproved amounts, as well as an additional cost of delay, such that the rate increases requested will be actuarially equivalent among states*

John Hancock 2016 Inforce Rate Increase Filings Corporate Choice

State	2015 Policy Counts	2015 Annualized Premium	2010 Filing		2016 Filing				
			Approved Date	Approved Avg. RI %	Requested Avg. RI %	2016 Filing Status	Approved Date	Approved Avg. RI %	Notes
AK									No certificate holders
AL	6	2,785	2-Feb-11	22.5%	28.4%	Filed			
AR									No certificate holders
AZ	71	74,200	No file	22.5%	28.4%	Approved	23-Dec-16	28.4%	Exempt from filing
CA									No certificate holders
CO	117	183,218	6-Jul-11	22.5%	28.7%	Not yet filed			
CT	343	521,785	No approval	0.0%	61.5%	Approved	27-Jun-17	15.0%	15% cap, no landing spots**
DC	97	138,586	21-Jun-12	22.5%		Not yet filed			
DE									No certificate holders
FL									No certificate holders
GA	35	16,416	26-Jun-12	19.5%	33.0%	Approved	14-Apr-17	15.0%	15% cap, no landing spots**
HI									No certificate holders
IA									No certificate holders
ID									No certificate holders
IL	250	475,034	6-May-11	22.5%	29.2%	Approved	15-Dec-17	29.2%	Phased in over 2 years
IN	16	18,234	No approval	0.0%		Not yet filed			
KS									No certificate holders
KY	33	32,433	25-Jul-11	19.9%	32.3%	Approved	16-Jun-17	12.0%	12% cap, no landing spots**
LA	29	34,693	2-Feb-12	22.5%	29.3%	Approved	3-Oct-17	15.0%	15% Cap, no landing spots**
MA	265	418,698	No file	22.5%	28.4%	Approved	24-Jan-17	28.4%	Exempt from filing
MD	101	176,016	23-Oct-12	15.0%	41.6%	Approved	16-Jan-18	26.6%	12.5% max 2-year phase-in**
ME									No certificate holders
MI	326	347,128	18-Apr-11	20.2%	31.2%	Approved	13-Feb-17	31.2%	
MN	386	254,718	26-Sep-11	22.5%	30.4%	Approved	15-Dec-17	30.4%	15% cap phase-in
MO									No certificate holders
MS	115	106,580	31-Mar-11	22.5%	28.4%	Approved	1-Feb-17	25.0%	25% cap**
MT									No certificate holders
NC	135	128,010	2-Jun-11	22.5%	28.6%	Approved	5-Mar-18	28.6%	Approved in full - Corp Choice phased in at 25% first year and remainder in the second year.
ND									No certificate holders
NE	21	31,325	25-Aug-11	22.5%	28.8%	Approved	18-Sep-17	28.8%	
NH	36	56,061	9-Jun-11	22.5%	28.6%	Approved	26-Jul-17	28.6%	
NJ	162	297,098	No file	22.5%	28.4%	Approved	2-Mar-17	28.4%	Exempt from filing
NM	41	48,946	No approval	0.0%	61.5%	Filed			
NV	28	27,330	No approval	0.0%	62.2%	Approved	26-Jul-17	62.2%	3-year equal phase-in
NY	959	1,014,068	9-Oct-13	5.0%	53.9%	Approved	6-Dec-17	5.0%	5% Cap, no landing spots**
OH	611	520,014	15-Mar-11	22.5%	28.4%	Approved	1-May-17	15.0%	15% Cap, no landing spots**
OK	47	62,240	26-Aug-11	22.5%	28.8%	Approved	2-Jun-17	10.0%	10% Cap, no landing spots**
OR	247	318,505	14-Feb-12	22.5%	29.3%	Approved	24-Sep-17	29.3%	
PA	1,254	1,881,964	17-Feb-11	22.5%	28.4%	Approved	27-Apr-17	25.1%	20% Cap on FPO**
RI									No certificate holders
SC									No certificate holders
SD									No certificate holders
TN	123	138,102	31-Jan-11	22.5%	28.4%	Approved	16-Feb-17	28.4%	
TX									No certificate holders
UT									No certificate holders
VA	237	373,029	2-Feb-12	22.5%	29.3%	Filed			
VT	5	3,479	No approval	0.0%		Not yet filed			
WA									No certificate holders
WI									No certificate holders
WV									No certificate holders
WY									No certificate holders

*** states that approved capped amounts were done so with the understanding that John Hancock would be re-filing for any unapproved amounts, as well as an additional cost of delay, such that the rate increases requested will be actuarially equivalent among states*

John Hancock 2016 Inforce Rate Increase Filings GPB-COV-0002

State	2015 Annualized Premium	2016 Filing				
		Requested Avg. RI %	2016 Filing Status	Approved Date	Approved Avg. RI %	Notes
AK						No certificate holders
AL						No certificate holders
AR						No certificate holders
AZ						No certificate holders
CA	1,066,011	11.8%	Filed			
CO	443,274	20.0%	Not yet filed			
CT	1,188,846	11.8%	Approved	27-Jun-17	11.8%	Flat 11.8%
DC						No certificate holders
DE						No certificate holders
FL						No certificate holders
GA	758,775	8.4%	Approved	14-Apr-17	8.4%	
HI						No certificate holders
IA						No certificate holders
ID						No certificate holders
IL	2,726,687	8.4%	Approved	30-Oct-17	8.4%	
IN	129,077		Not yet filed			
KS						No certificate holders
KY						No certificate holders
LA	10,337	8.4%	Approved	2-Oct-17	8.4%	
MA	2,083,124	8.4%	Approved	24-Jan-17	8.4%	Exempt from filing
MD	8,540,484	10.8%	Approved	16-Jan-18	10.2%	Cap 3-year phase-in**
ME						No certificate holders
MI	619,545	8.4%	Approved	13-Feb-17	8.4%	
MN						No certificate holders
MO	784,866	8.4%	Approved	18-Sep-17	8.4%	
MS						No certificate holders
MT						No certificate holders
NC	3,169,301	8.4%	Approved	5-Mar-18	8.4%	
ND						No certificate holders
NE						No certificate holders
NH						No certificate holders
NJ						No certificate holders
NM						No certificate holders
NV						No certificate holders
NY	3,752,128	10.6%	No approval	0-Jan-00		
OH						No certificate holders
OK						No certificate holders
OR						No certificate holders
PA	40,996	8.4%	Approved	27-Apr-17	8.4%	
RI						No certificate holders
SC						No certificate holders
SD						No certificate holders
TN						No certificate holders
TX						No certificate holders
UT	61,458	8.4%	Approved	14-Jun-17	8.4%	
VA	1,065,000	8.4%	Filed	0-Jan-00		
VT						No certificate holders
WA	2,655,700			0-Jan-00		Can't request due to WA Regulation WAC 284-60-050
WI	572,811	8.4%	Approved	1-Sep-17	8.4%	10% in year 1, remainder in year 3
WV						No certificate holders
WY						No certificate holders

*** states that approved capped amounts were done so with the understanding that John Hancock would be re-filing for any unapproved amounts, as well as an additional cost of delay, such that the rate increases requested will be actuarially equivalent among states*

John Hancock 2016 Inforce Rate Increase Filings Care Choice

State	2015 Annualized Premium	2016 Filing				
		Requested Avg. RI %	2016 Filing Status	Approved Date	Approved Avg. RI %	Notes
AK	123,993	15.8%	Approved	27-Jul-17	15.8%	
AL	51,721	15.8%	Filed			
AR	47,448		Not yet filed			
AZ	290,155	15.8%	Approved	23-Dec-16	15.8%	Exempt from filing
CA	16,017,348	55.0%	Filed			
CO	1,174,775	20.0%	Not yet filed			
CT	441,859	66.1%	Approved	27-Jun-17	15.0%	15% Cap, no landing spots**
DC	2,050,863		Not yet filed			
DE	907,202	17.7%	Approved	10-Mar-17	17.7%	
FL						No certificate holders
GA	26,783,743	28.2%	Approved	14-Apr-17	15.0%	15% Cap, no landing spots**
HI	1,722,401	17.3%	Filed			
IA	3,783,012	27.7%	Approved	23-Aug-17	15.8%	15% Cap for FPO, full approval for ABI**
ID	110,335	15.8%	Approved	4-May-17	15.8%	
IL	10,400,585	18.4%	Approved	15-Dec-17	18.4%	
IN	1,198,231		Not yet filed			
KS	138,657	26.2%	Filed			
KY	644,456	27.3%	Approved	16-Jun-17	27.3%	
LA						No certificate holders
MA	11,663,402	15.8%	Approved	24-Jan-17	15.8%	Exempt from filing
MD						No certificate holders
ME	97,098	16.2%	Approved	8-May-18	16.2%	
MI	11,230,360	15.8%	Approved	13-Feb-17	15.8%	
MN	4,608,805	17.1%	Approved	15-Dec-17	17.1%	15% cap phase-in
MO	7,634,599	18.8%	Approved	1-Sep-17	18.8%	
MS						No certificate holders
MT						No certificate holders
NC	895,147	16.1%	Approved	5-Mar-18	16.1%	
ND						No certificate holders
NE	461,865	58.6%	Approved	18-Sep-17	58.6%	All certificate holders issued after 2010 RI
NH	331,274	16.1%	Approved	26-Jul-17	16.1%	
NJ	7,526,962	15.8%	Approved	2-Mar-17	15.8%	Exempt from filing
NM	1,614,201	66.1%	Filed			
NV	101,232	66.1%	Approved	26-Jul-17	66.1%	3-year equal phase-in
NY	24,290,003	58.1%	Approved	6-Dec-17	5.0%	5% Cap, no landing spots**
OH	3,574,168	15.8%	Approved	1-May-17	15.0%	15% Cap**
OK	591,535	20.1%	Approved	2-Jun-17	10.0%	10% Cap, no landing spots**
OR	392,679	17.1%	Approved	24-Sep-17	17.1%	
PA	6,668,427	15.8%	Approved	27-Apr-17	15.8%	
RI	35,743	25.0%	Filed			
SC	757,803	22.6%	Approved	3-Jul-17	18.0%	20% cap**
SD						No certificate holders
TN						No certificate holders
TX	27,460,282	18.1%	Approved	7-Apr-17	18.1%	
UT	132,635	15.8%	Approved	14-Jun-17	15.8%	
VA	6,472,385	17.1%	Filed			
VT						No certificate holders
WA	2,433,640	15.5%	Filed			
WI	808,484	15.8%	Approved	1-Sep-17	15.8%	
WV						No certificate holders
WY						No certificate holders

*** states that approved capped amounts were done so with the understanding that John Hancock would be re-filing for any unapproved amounts, as well as an additional cost of delay, such that the rate increases requested will be actuarially equivalent among states*

John Hancock Financial Services

Long Term Care
601 Congress Street
Boston Massachusetts 02210

(617) 572-7026
JulieKRobinson@jhancock.com

Julie K. Robinson, FSA, MAAA, CFP®
Assistant Actuary, LTC In Force Management

LONG-TERM CARE INSURANCE

November 20, 2018

Bill Dismore
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A.)
2016 GLTC Inforce Rate Increase Filing – Pre-RS
SERFF ID: MULF-130882991

Dear Mr. Dismore,

This letter is in response to your objection dated October 17, 2018 regarding the above filing. Your questions/requests are included below in **bold** with our responses following.

1. **Please provide the "2016 Rate Increase Filing Summary 03142018.pdf" in Excel format and include the cumulative total of all approved rate increases to date in each state.**

   Refer to the Excel file "2016 Rate Increase Filing Summary_Pre RS.xlsx".

2. **Since only a sample of voluntary lapse rates is supplied, please provide the average ultimate voluntary lapse rates under current assumptions for this block of business.**

   Our ultimate lapse rates vary by issue age and underwriting type. See the below table.

Ultimate lapse rate by issue age								
Issue age	0-37	38-42	43-47	48-52	53-57	58-62	63-67	68+
Fully underwritten	0.62%	0.58%	0.42%	0.42%	0.42%	0.42%	0.42%	0.50%
Guaranteed issue	1.02%	1.02%	0.82%	0.67%	0.48%	0.48%	0.48%	0.48%

   Our weighted average overall ultimate voluntary lapse rate is 0.62%.

3. **Please provide the historical claim count for each product series.**

   Refer to the Excel file "*Incurred claims counts_Pre RS.xlsx*" for historical claim counts for each product series. Note the P-FACE(2002-2) counts include both Pre RS & Post RS claims.

4. **Please clarify the percentages listed in section 16.2 of the memorandum for GPB-COV-0002, which do not seem to correspond to the final rate increase percentages in this filing.**

   The percentages in section 16.2 of our submitted memorandum are incorrect. Attached please find a revised memorandum in "*Revised GLTC 1997 actuarial memo.pdf*".

5. **For both the model refinements and the model corrections, the documentation quantifies the impact versus the 2010 pricing models. To what extent were these modeling deficiencies present in the original pricing models?**

   No modeling deficiencies were present within our original pricing models.

6. **For all projections requested in the next question, the baseline should comply with the following:**

   a. Any limited-pay paid-up policies should be removed, both from historical experience and future projections.

   b. For this pre-stability block, assumptions should be best-estimate, without margins for moderately adverse conditions.

   c. Premiums should be at the Virginia rate level for both historical and projected future.

   d. Please use the appropriate average maximum valuation interest rate for each product series for accumulation and discounting of this block as specified in 14VAC5-200-150.

   e. Please ensure that the discount/accumulation formulas are working formulas and specify the interest rates used in each exhibit.

7. **Because the Bureau has observed over the years that there is often internal subsidization occurring between policyholders with different policy characteristics, for each of the four subsets of the business corresponding to the combinations of (limited/lifetime benefit periods) and (without/with inflation protection), please provide (in Excel format) the following projections on a nationwide basis:**

   a. current assumptions and current rates

   Please see the following files:

   - VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
   - VA GLTC1997 Loss Ratio Exhibit splits.xlsx

   b. current assumptions and current rates, including paid-up policies (if any)

   Our Pre RS plans do not contain limited-pay paid-up policies.

   c. current assumptions with the proposed rate increase

   Please see the following files:

   - VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
   - VA GLTC1997 Loss Ratio Exhibit splits.xlsx

   d. current assumptions with the proposed rate increase, but with no shock lapses, benefit reductions, CBUL, or adverse selection (if applicable)

   Please see the following files:

   - VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
   - VA GLTC1997 Loss Ratio Exhibit splits.xlsx

   e. current assumptions with premiums restated as if the proposed rate schedule had been in effect from inception

Please see the following files:

- VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
- VA GLTC1997 Loss Ratio Exhibit splits.xlsx

Please note that we do not believe it is appropriate to assume rate increases applied at inception for the purposes of determining if an additional rate increase is needed. This methodology would greatly expand the risk in the product by not allowing companies to seek the appropriate premium levels needed to maintain the future financial health of the policies.

While we do not know exactly how you utilize the information from the exhibits where all rate increases are assumed to be collected from the issue date of the policy, we would like to bring to your attention two very recently published documents that state that it is not appropriate to use this type of information (Phantom Premium or If-Knew Methodology) alone in determining the amount of a rate increase. Both of these documents were discussed at the NAIC fall annual meeting in November of 2018.

1. "LTCI_Considerations_103118.pdf", which is an Issue Brief published by the American Academy of Actuaries. Please see the "Past Premium Shortfalls" section on pages 5 and 6.
2. "Approaches to LTC Rate Increases Final from Pricing Subgroup.docx", which is a guidance document from the NAIC's Long-Term Care Actuarial Workgroup's LTC Pricing Subgroup which discusses two potential approaches to determining rate increases. Please see the 2nd paragraph under the section "Blended If-Knew/Make-up Approach" on page 10.

Exhibit 1A: Demonstration of not Recouping Past Losses was included in the original filing package to demonstrate John Hancock is not recouping past losses from current rate increase request. From a discussion by the NAIC in late 2013, the accepted methodology, which was incorporated into the 2014 LTC Model Regulation, ensures that past claim losses are not being recouped by only considering the lesser of actual and expected past claims when showing compliance with the loss ratio requirement. Expected past claims are defined as the following:

> "Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing."

We apply this methodology in Exhibit 1A: Demonstration of not Recouping Past Losses. The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing loss ratio to the actual earned premium in a given calendar year. Later, in years in which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed at that time.

f. original assumptions and original premiums from inception

Please see the following files:

- VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
- VA GLTC1997 Loss Ratio Exhibit splits.xlsx

g. actual past experience (claims, mortality, lapse) but original assumptions in the future, with all premiums at the original premium scale from inception.

Please see the following files:

- VA Care Choice Pre RS Loss Ratio Exhibit splits.xlsx
- VA GLTC1997 Loss Ratio Exhibit splits.xlsx

Projections a-g can be separate tabs or combined into separate columns on the same exhibit.

8. **For each of the four subsets of the business above, please provide the active life reserves balance as of the projection date on a nationwide basis.**

   See the below tables.

Care Choice (2002 Plan)		
Inflation type	**Benefit period range**	**Reserve**
With inflation	Non-lifetime	637,653,020
With inflation	Lifetime	-
Without inflation	Non-lifetime	897,451,353
Without inflation	Lifetime	28,179,764

GLTC 1997 Plan		
Inflation type	**Benefit period range**	**Reserve**
With inflation	Non-lifetime	95,416,046
With inflation	Lifetime	-
Without inflation	Non-lifetime	523,652,454
Without inflation	Lifetime	-

9. **Since this filing includes two distinct product series, please provide the above exhibits separately for each series.**

   The exhibits above are provided separately for each Policy Series.

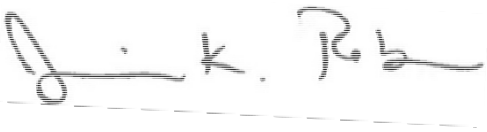
10. **Relative value from landing spot election is typically not equivalent for each individual insured. How does the company communicate to the policyholder that all options may not be of equal value from their perspective?**

    The policyholder cover letters will include the following statement: “Please be advised that all of the options available to you may not be of equal value, so please review this information carefully.”

    Please see the form filing SERFF MULF-130883116 for a cover letter with this language.

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,



Julie K. Robinson, FSA, MAAA, CFP®

American Academy of Actuaries

Issue Brief

Long-Term Care Insurance:

Considerations for Treatment of Past Losses in Rate Increase Requests

OCTOBER 2018

KEY POINTS

- Most LTCI policies include a "guaranteed renewable" contractual provision requiring an insurance company to offer to renew these policies every year for a specific premium, however, the insurer may renew these policies at higher rates to reflect emerging experience.
- The 2014 NAIC LTC Model Regulation stipulates that any excess of actual past claims over expected past claims cannot be reflected in the loss ratio compliance.
- It would be inappropriate to use the "Phantom Premium" methodology alone to determine the amount of an allowable rate increase.
- Restricting premium rate increases in such a way that future claims cannot be funded could have severe financial implications.

Introduction

Private long-term care insurance (LTCI) is an option for financing future long-term care (LTC) needs. LTCI has received much attention due to the relative size and frequency of premium rate increases. As insurance regulators and LTCI companies have assessed the necessity and justification for these premium rate increase requests, they have discussed which types of past losses should not be recoverable.

This issue was considered in the drafting of the 2014 National Association of Insurance Commissioners (NAIC) LTC Model Regulation,[i] which stipulates that any excess of actual past claims over expected past claims cannot be reflected in the loss ratio compliance. This Model Regulation further stipulates that expected claims are based on original pricing assumptions until new assumptions are reflected as part of a rate increase where those new assumptions are to be used for all periods beyond each requested effective date of a rate increase. Although that 2014 language only applies prospectively to new LTCI policies issued after the effective date of a state's adoption, it may be reasonable to apply the NAIC guidance on this issue retroactively to other policies. Recently, the NAIC Long-Term Care Pricing Subgroup has explored methods for the premium rate increase process to evolve and become more uniform among the various states and jurisdictions.

The American Academy of Actuaries' Long-Term Care Past Losses Considerations Work Group has developed this issue brief to identify issues commonly raised in favor of and against recoupment of past losses in various situations.

American Academy of Actuaries
Objective. Independent. Effective.™

1850 M Street NW, Suite 300
Washington, DC 20036
202-223-8196 | www.actuary.org

Craig Hanna, Director of Public Policy
Cori Uccello, Senior Health Fellow

© 2018 American Academy of Actuaries. All rights reserved.

Background

Most LTCI policies include a "guaranteed renewable" contractual provision requiring an insurance company to offer to renew these policies every year for a specific premium. However, the insurer may renew these policies at higher rates, raising premiums on a class basis after receiving approval from state regulators for the specific set of new premium rates. The new premium rates should be based on actual experience together with future anticipated experience. Thus, guaranteed renewable insurance policies only guarantee that the insurer will not cancel the policies; they do not guarantee that premium rates will remain the same after the policy is issued. Unlike the attained age rating methodology used in some other health insurance products, LTCI products are rated on an issue age basis. Issue age rating requires the insurer to establish an expected level premium structure from the date of issue while accounting for liabilities over a very long time horizon.

A premium rate increase could be justified when the overall lifetime loss ratio exceeds regulatory minimums. When a block of LTCI is initially priced, the projected profitability is measured using the entire life of the block. While actual experience will fluctuate from expected, the overall performance can still be measured using the lifetime loss ratio.

Under the statutory requirements of the 1980s and early 1990s, pricing actuaries were expected to certify that the premium rates were designed to produce a certain minimum lifetime loss ratio. The lifetime loss ratio is defined as the present value of projected claims over the present value of projected premiums. Most states required actuaries to certify that the minimum lifetime loss ratio be at least 60 percent, although some states required different minimums. The intent of this minimum lifetime loss ratio was to protect the consumer from high premium rates by requiring that most of the premiums were paid out in benefits.

In the early stages of the product life cycle, LTCI pricing assumptions were based on a combination of assumptions from other insurance products thought to be most comparable. Modifications to these assumptions were derived from population data, as there was no actual experience specific to LTCI products available. In the late 1990s and early 2000s, insurers and regulators began to observe that unfavorable experience was emerging, at least with respect to lapse experience.

The NAIC adopted a new pricing certification, requiring the insurer to build a margin into the pricing to cover moderately adverse experience. The regulation of LTCI shifted from facilitating the delivery of a minimum benefit in relation to the premium to a consumer protection focus of reducing the need for future premium rate increases. This new approach was coined the "Rate Stability" regulation. The intent of this new pricing methodology was to reduce the likelihood of future premium rate increases, due to the built-in margin for adverse experience. However, if that margin is exhausted, a premium rate increase can still be filed, justified, approved, and implemented, provided future experience is projected to be worse than originally projected and the other requirements of the regulation are met. This regulation first went into effect in Idaho on July 1, 2001, and was slowly adopted in all but nine states thereafter. However, it was several years before all insurers filed for and received approval for rate-stabilized policies.

Members of the Long-Term Care Past Losses Considerations Work Group include: Dave Plumb, MAAA, FSA—*Chairperson*; Jamala M. Arland, MAAA, FSA; Jim Glickman MAAA, FSA, FCA; Perry Kupferman, MAAA, FSA; Al Schmitz MAAA, FSA; and Bruce Stahl, MAAA, ASA. The work group would like to extend special thanks to Jodi McAllister for her contributions.

Current discussions between insurers and regulators include whether premium rate increases can be used to recoup past losses, in addition to any increases needed to avoid expected future losses. There are many possible sources of past losses, including past persistency in excess of expected, past claims in excess of expected, delays in the request or approval of necessary premium rate increases, companies pricing different from industry standards, investment returns being lower than expected, and shortfalls in past premiums.

Past Persistency in Excess of Expected

Long-term care insurance is a lapse-supported product: To the extent that persistency is higher than expected, the lifetime loss ratio will be higher than expected. From an incurred claim and loss ratio perspective, higher persistency in the early policy years will generally not materially impact the historical loss ratio. The impact is primarily in the future, as more people are expected to persist to higher-cost claim years, which will result in more claims being paid out in the future than anticipated.

Assuming morbidity is as expected, higher persistency generally results in a higher historical loss ratio. However, this higher persistency can be adjusted for in the premium rate increase calculation.

Past Claims in Excess of Expected

There are arguments both for and against recouping past losses due to past claims being greater than expected. Those arguments weigh whether the company should bear all, some, or none of the burden of past losses of this sort, and how active premium-paying policyholders should share in that burden.

A key public policy issue surrounding allowing insurers to recoup past losses through premium rate increases centers around the "fairness" of the increased premium rate burden on policyholders who are still actively paying premiums. After a premium rate increase, those active policyholders will pay for future benefits at a higher premium rate. Those active policyholders could also be required to contribute to funding higher-than-expected claims that have already been incurred by other policyholders who are on claim and who are no longer paying premiums. Policyholders should fund the expected cost of future benefits, but it is not clear how much a policyholder should also be expected to fund higher than expected incurred claims by other policyholders who will not share in the burden. The 2014 NAIC LTC Model Regulation states that policyholders should not fund unexpectedly high benefits paid in the past (by only including the lesser of actual and expected past claims in the loss ratio calculation). Therefore, it is critically important for insurers to manage and monitor their inforce blocks proactively and seek any necessary premium rate increases in a timely manner when justified by experience or changes to future assumptions.

State Rate Approval Delays or Limitations

If a state delays or limits an approval of an insurer's request for a premium rate increase, the company will lose both premium and investment income. Treating such losses as non-recoverable would appear to be unfair and would add a considerable amount of risk to the LTCI product line. Such treatment could also result in subsidization of premium rates across states, which in turn could create an unfair extra burden for policyholders in states that have approved justified premium rate increases in a timely manner.

Insurer Delays in the Filing Process

When premium rate increase filings are delayed, larger future increases will be necessary in order to achieve the same lifetime loss ratio, all else equal. In cases where an insurer should have filed for a premium rate increase but delayed doing so, some would contend the cost of such delay should be borne solely by the insurer. This would mean that policyholders would only be subject to the premium rate increase that would have been necessary had the filing been timely. Such delays could be due to companies not reviewing their data and projections regularly, or by making an error in their projections, thus, not being aware of the need for a premium rate increase. Delays could also be due to not responding in a timely manner to questions from states during the premium rate increase filing process.

However, there may be instances where companies waited for more credible experience—most likely morbidity—before filing for premium rate increases. There is a strong case to be made that this delay not be treated the same as neglecting to file. Even if a company knows that lapse or mortality experience is unfavorable, waiting to get more credible morbidity experience may be appropriate to avoid filing for premium rate increases that may turn out to be unnecessary, should morbidity emerge better than expected.

Pricing Different From Industry Standards

There is a view that some inforce blocks of LTCI may have been priced with assumptions that were different, and in hindsight unreasonable, relative to industry norms and standards at the time of pricing. As such, the financial shortfall resulting from any differences between the pricing assumptions and the industry standard might be the responsibility of the insurer. However, the reasonability of pricing assumptions, the industry standards, and even significant differences in the product itself are highly subjective in advance of emerging experience.

For example, an insurer's pricing may be different from what might otherwise be considered industry standards for legitimate reasons, such as differences in benefits, policy provisions, administrative practices, underwriting, sales distribution channels, sales practices, geography, and target market. The pricing assumptions may also be subject to company-specific experience. It can be difficult to objectively assess how much each of these elements contributed to the pricing of a product, especially when experience turns out to be adverse.

Additionally, defining industry standards is challenging and subjective. The benchmarks chosen must be appropriate for pricing. Intercompany studies and industry tables only provide a hindsight view and can be distorted because of the difficulty in isolating differences across multiple insurers that participate.

However, if it is determined that an insurer purposefully used inappropriate assumptions—for example, in order to achieve a higher level of sales—then the insurer should not be allowed to recoup those losses.

Past and Future Investment Returns

Inforce blocks of LTCI are very sensitive to changes in investment income rates, as well as morbidity, mortality, and lapse experience. For determining the lifetime loss ratio at the point of re-rating an inforce block of LTCI, the Rate Stability regulation prescribes the use of "the maximum [statutory] valuation interest rate for contract reserves" (which suggests that the rate is based on the issue years of the block) with a disclosure that "the use of any averages" is permitted (which suggests a single weighted rate). As such, it would appear that investment returns better or worse than expected would be a gain or loss to the company and have no impact on changes to premium rates for Rate Stability products. The rest of this section is focused on pre-Rate Stability products.

Pre-Rate Stability regulation is silent on what discount rate to use, and different states vary in their approach to this issue. The 2013 NAIC Model Bulletin[ii] does stipulate that the maximum statutory valuation discount rate be used in determining loss ratios (for pre and post-Rate Stability business). That same bulletin also introduced a dual loss ratio requirement for pre-Rate Stability business, which is 60 percent (or the originally expected lifetime loss ratio, if greater) of the premiums in effect as of the effective date of the new requirement plus 80 percent (75 percent for group) of any increases after that date. While not many states have adopted this Model Bulletin, it indicates the willingness of states to treat pre-Rate Stability products similar to post-Rate Stability products, where companies bear the investment return risk, and where investment returns would have no impact on changes to premium rates.

Across many insurance product lines, for products priced in the 1980s and early 1990s, it was common to use interest rates in excess of 8 percent, since investment rates on investment grade bonds were well into double digit levels. *Long-Term Care Insurance: The SOA Pricing Project*[iii] noted that the average LTCI industry investment income assumption for new LTCI products priced in the year 2000 was 6.4 percent, while in 2014 it had dropped to 4.6 percent. Additionally, there usually is not a single discount rate that impacts the setting of premiums or the profitability of the business. While the expected investment return is important, the valuation discount rate is also important in setting premiums and measuring profitability because the level of reserves held has a material impact on profitability. The lifetime loss ratio calculation does not explicitly account for the impact of investment income—only implicitly in the discount rate used. Any difference between the discount rate used to determine the original pricing loss ratio and the discount rate used to determine the loss ratio at the point of re-rating will have an impact on the repricing of the block. As long as the insurer consistently uses the same discount rate between pricing and rate increase calculations, this concern can be alleviated.

For those states that have not subscribed to the Model Bulletin treatment for pre-Rate Stability products, the current sustained low-interest-rate environment is especially challenging. LTCI insurers should be allowed to consider differences in expectation of investment returns when calculating the actuarially justified premium rate increase. Any historical gain or loss from investment returns could be readily determined, although it may not be feasible to fairly attribute historical investment returns to a specific block of LTCI because most insurers manage their investment portfolios at a line of business or total company level. Projecting future gains or losses from investment returns is likely to be quite subjective, as it requires projections of future interest rates, which can be more volatile than morbidity, mortality, and lapse experience.

Past Premium Shortfalls

Although the 2014 NAIC LTC Model Regulation considered past losses, there have been continuing discussions about how to treat past losses in premium rate increase filings, most notably in the 2017–18 discussions among the NAIC Long-Term Care Pricing (B) Subgroup.

A few states have developed rules on how to adjust for past losses by assuming the new premium was charged since inception in demonstrating compliance with the minimum loss ratio. This is referred to as the "Phantom Premium" approach. This essentially means a policyholder should pay no more in the future than what he or she would have paid had the insurance company known exactly how experience would develop when the product was originally priced. Using this approach raises some serious concerns, which are outlined below.

If all the adverse claims experience is expected to be in the future, it follows that there are no past claim losses to recoup, and the higher future premiums are needed to offset the higher future claims. In this case, assuming those higher premiums were paid from the original issue date could expose the insurers to much higher risks retroactively, compared with what they may have believed to be the case when they decided to enter this product line. If this situation arises after, say, two-thirds of the premiums have been paid on a particular policy form, the company could only increase premiums to address one-third of the now-expected additional claims. This approach can cause serious solvency concerns, especially when companies have older blocks of business. Therefore, it would be inappropriate to use the "Phantom Premium" methodology alone to determine the amount of an allowable rate increase.

There are many reasons why an insurer could find itself in the scenario of expecting adverse experience in the future, including:

1. While early-duration claims may have been better than expected, claims experience at the older ages and later policy durations (after underwriting has worn off) may be worse than originally expected. When the insurer obtains enough experience to recognize the problem at the older ages and later durations, it may still have observed gains in the past or just modest losses, while the significant losses are to be expected to unfold in future years.

2. A new type of LTC service provider may become available that customers find more attractive and which is more costly than other service providers. A shift to the new service provider can increase the expected future costs above what was originally expected. A typical example of this phenomenon occurred with the emergence of assisted living facilities in the mid-1990s and the eventual mandating of their inclusion by some jurisdictions, in policies previously issued and priced without anticipation of that benefit.

3. Medical advances or lifestyle changes can extend peoples' lives so that more people survive to the ages where LTC services are typically needed.

Medical advances can extend the lives of people who are already using LTC services, thus extending the duration of claims.

One of the revisions in the 2014 NAIC LTC Model Regulation prevents insurers from recouping past claim losses by requiring them to use the lesser of actual and expected past claims when demonstrating compliance with the minimum loss ratio. Thus, if companies are experiencing greater claims than expected, and fail to act in a timely manner, those past claim losses cannot be passed on to policyholders through premium rate increases. But premium rate increases are allowed in order to fund increases in future claims expectations, subject to the minimum loss ratio and Rate Stability requirements.

Conclusion

The LTCI premium rates developed by insurers from at least 10 years ago have generally turned out to be underpriced, and thus many premium rate increases have been filed on this business. It is common for LTCI carriers today to anticipate higher-than-expected future claims, and higher-than-expected overall lifetime claims, on their inforce LTCI policies. The guaranteed renewable feature of LTCI is meant to encourage insurers to enter this line of business, and if necessary to revise their premiums to adjust for the greater-than-expected future claims.

The current LTC Model Regulation has been revised to avoid the recoupment of *past* claim losses. Restricting premium rate increases in such a way that *future* claims cannot be funded could have severe financial implications and does not follow the 2014 NAIC LTC Model Regulation.

---

[i] Long-Term Care Insurance Model Regulation; NAIC; 1st Quarter 2017. Accessed at naic.org/store/free/MDL-641.pdf.

[ii] Model Bulletin; NAIC; Aug. 9, 2013. Accessed at naic.org/documents/committees_b_senior_issues_130809_ltc_model_bulletin.pdf.

[iii] *Long-Term Care Insurance: The SOA Pricing Project*; Society of Actuaries; November 2016. Accessed at soa.org/Files/Sections/ltc-pricing-project.pdf.

The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

John Hancock Life Insurance Company (U.S.A.)
Actuarial Memorandum for Inforce Rate Increase – Group Long-Term Care Policy Series
November 19, 2018

Product Name	Form Number	Issue Date Range
Group Long Term Care	GPB-COV-0002	December 1998 - June 2012

1. Scope & Purpose

This memorandum consists of materials which support the development of new premium rates for the above captioned Policy series forms, for certificates issued with the rates that were accepted by your state. The purpose of this memorandum is to demonstrate that the requirements of this State in regards to an in force rate increase request have been met. This rate filing is not intended to be used for any other purpose.

2. Benefit Description

A brief policy description for the certificate form:

GPB-COV-0002
This is a Group Long-Term Care plan that pays benefits to the certificate holder insured for the following covered care or services provided to the insured:

- Confinement in a Nursing Home or Alternate Care Facility for room, board and care services;
- Home Health Care; Hospice Care, Respite Care; or
- Attendance at an Adult Day Care Center providing Adult Day Care.

It is intended to be a Qualified Long-Term Care Insurance contract under the Federal Internal Revenue Code.

The benefit trigger is determined based on the insured's cognitive impairment or his requiring substantial assistance to perform two out of six activities of daily living (ADLs) of bathing, dressing, eating, toileting, transferring and maintaining continence. The insured must be certified to be chronically ill by a licensed health care practitioner.

Long-Term Care Benefits are paid at 100% of the actual charges for each day of care after the qualification period up to:

Nursing Home (NH) Care:

(a) the Nursing Home Daily Maximum Benefit (NH DMB) elected for care received in a NH, or

Home Health / Adult Day Care:

(b) the Home Health DMB elected for covered services received in a community setting (including home health care, adult day care and hospice care provided outside a NH, hospice facility or alternate care facility) or

Alternate Care Facility (ACF):

(c) the ACF DMB elected for covered services received in an ACF, or

Informal Care:

(d) the Informal Care DMB elected up to the number of days per calendar year elected for covered Informal Care services (custodial or homemaker services provided by a person without professional skills).

Benefits are payable until the Lifetime Maximum Benefit (LMB) is reached. Benefits are coordinated with Medicare as well as with any other Group certificate coverages.

3. Renewability

Certificates under this policy form have a guaranteed renewable clause.

4. Applicability

This filing is applicable to inforce policies and to new certificates enrolling in this policy series. The premium changes will apply to the base forms as well as all applicable optional benefits upon the expiration of any applicable group policy rate guarantees.

5. Actuarial Assumptions

Morbidity

The morbidity assumptions are derived from our own experience, following a comprehensive claim study recently completed. The study has been peer reviewed both internally as well as by an Independent third party.

Our claims projections include 12 years of future morbidity improvements at 1.1% per year.

Below are currently expected sample annual claim costs for a GPB-COV-0002 policy, $10 daily benefit, and 5yr LMB:

Issue Age 45		
Age	**FPO**	**ABI**
45	4.39	6.32
50	4.43	7.91
55	6.09	13.29
60	6.81	16.35
65	11.70	34.85
70	21.71	78.97
75	58.95	271.07
80	147.24	854.24
85	314.23	2,254.50

Issue Age 50		
Age	**FPO**	**ABI**
50	5.47	7.80
55	6.89	12.13
60	8.15	16.04
65	15.70	38.03
70	33.44	98.54
75	89.83	333.37
80	215.09	1,005.01
85	394.43	2,280.14

Issue Age 60		
Age	**FPO**	**ABI**
60	7.49	9.72
65	15.07	24.10
70	35.72	68.18
75	99.34	234.30
80	243.40	715.37
85	443.63	1,601.82

Voluntary Lapses

The voluntary lapse rates are also based on our own experience:

In addition to the lapse rates shown below, we assume an additional 1.1% lapse rate due to the rate increase.

Guaranteed Issue:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	18.7%	10.8%	8.8%	7.4%	6.8%	7.0%	7.0%	7.0%	7.0%
2	16.0%	9.4%	7.4%	5.9%	5.4%	5.4%	5.4%	5.4%	5.4%
3	12.4%	7.0%	6.5%	4.9%	4.0%	3.8%	3.8%	3.8%	3.8%
4	10.5%	6.3%	5.7%	4.3%	3.4%	3.0%	3.0%	3.0%	3.0%
5	8.9%	5.6%	5.0%	3.8%	3.0%	2.4%	2.4%	2.4%	2.4%
6	7.5%	5.0%	4.4%	3.3%	2.6%	1.9%	1.9%	1.9%	1.9%
7	6.3%	4.4%	3.8%	2.9%	2.2%	1.5%	1.5%	1.5%	1.5%
8	5.3%	3.9%	3.3%	2.5%	1.9%	1.2%	1.2%	1.2%	1.2%
9	4.8%	3.6%	3.0%	2.3%	1.7%	1.0%	1.0%	1.0%	1.0%
10	4.7%	3.3%	2.7%	2.1%	1.5%	0.8%	0.8%	0.8%	0.8%
11	4.3%	3.0%	2.4%	1.9%	1.4%	0.6%	0.6%	0.6%	0.6%
12	3.7%	2.7%	2.1%	1.6%	1.2%	0.5%	0.5%	0.5%	0.5%
13	3.3%	2.4%	1.8%	1.4%	1.0%	0.5%	0.5%	0.5%	0.5%
14	3.0%	2.2%	1.6%	1.3%	0.9%	0.5%	0.5%	0.5%	0.5%
15	2.7%	1.9%	1.4%	1.1%	0.8%	0.5%	0.5%	0.5%	0.5%
16	2.4%	1.7%	1.2%	1.0%	0.7%	0.5%	0.5%	0.5%	0.5%
17	2.2%	1.5%	1.1%	0.9%	0.6%	0.5%	0.5%	0.5%	0.5%
18	2.0%	1.4%	0.9%	0.8%	0.5%	0.5%	0.5%	0.5%	0.5%
19	1.8%	1.2%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
20	1.6%	1.1%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
21	1.4%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
22	1.3%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
23	1.2%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
24	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%
25+	1.0%	1.0%	0.8%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%

Fully Underwritten:

Duration	Issue Age								
	30	40	45	50	55	60	65	70	80
1	10.3%	5.8%	4.7%	3.4%	2.9%	3.0%	3.7%	3.0%	3.0%
2	8.4%	4.8%	4.0%	2.9%	2.4%	2.1%	2.4%	1.8%	1.8%
3	7.2%	4.6%	3.4%	2.8%	2.0%	1.7%	1.4%	1.4%	1.4%
4	6.2%	4.0%	2.9%	2.3%	1.7%	1.3%	1.1%	1.1%	1.1%
5	5.4%	3.5%	2.5%	2.0%	1.4%	1.1%	0.9%	1.0%	1.0%
6	4.6%	3.0%	2.2%	1.7%	1.2%	0.8%	0.7%	0.8%	0.8%
7	4.0%	2.6%	1.9%	1.4%	1.0%	0.7%	0.4%	0.7%	0.7%
8	3.4%	2.3%	1.6%	1.2%	0.9%	0.5%	0.4%	0.5%	0.5%
9	2.9%	2.0%	1.4%	1.0%	0.7%	0.4%	0.4%	0.5%	0.5%
10	2.7%	1.7%	1.3%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
11	2.4%	1.5%	1.1%	0.8%	0.6%	0.4%	0.4%	0.5%	0.5%
12	2.3%	1.3%	0.8%	0.6%	0.5%	0.4%	0.4%	0.5%	0.5%
13	2.1%	1.2%	0.7%	0.6%	0.4%	0.4%	0.4%	0.5%	0.5%
14	2.0%	1.0%	0.6%	0.5%	0.4%	0.4%	0.4%	0.5%	0.5%
15	1.8%	0.9%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
16	1.7%	0.8%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
17	1.6%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
18	1.4%	0.7%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
19	1.3%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
20	1.2%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
21	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
22	1.1%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
23	1.0%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
24	0.9%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%
25+	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%

Mortality

The mortality rates have also been derived based on our own experience within our retail and group long-term care block of business.

The base mortality table is the unloaded 1994 Group Annuity Mortality Table, sex-distinct, with 19 years of historical improvements based on scale AA. We then apply the following series of adjustment factors which vary by underwriting class and gender:

Fully Underwritten:

Policy Duration	Issue Age			
	< = 55	65	75	> = 82
1	33.3%	19.0%	19.0%	28.5%
2	36.1%	21.9%	25.7%	33.3%
3	39.0%	24.7%	32.3%	38.0%
4	40.9%	27.6%	39.0%	42.8%
5	42.8%	31.4%	45.6%	47.5%
6	44.7%	36.1%	52.3%	52.3%
7	46.6%	41.8%	55.1%	57.0%
8	48.5%	48.5%	58.0%	61.8%
9	50.4%	55.1%	60.8%	66.5%
10	51.3%	61.8%	63.7%	71.3%
11	52.3%	64.6%	69.4%	76.0%
12	53.6%	66.5%	75.1%	80.8%
13	54.9%	67.5%	77.9%	85.5%
14	56.2%	68.5%	80.8%	90.3%
15	57.4%	69.7%	83.6%	95.0%
16	58.7%	71.1%	85.5%	95.0%
17	60.0%	72.5%	86.9%	95.0%
18	61.3%	74.0%	88.5%	95.0%
19	62.6%	75.4%	90.1%	95.0%
20	63.9%	76.9%	92.2%	95.0%
21	65.6%	78.4%	95.0%	95.0%
22	67.5%	80.1%	95.0%	95.0%
23	69.4%	81.7%	95.0%	95.0%
24	72.2%	83.4%	95.0%	95.0%
25	76.0%	85.1%	95.0%	95.0%
26	79.8%	86.7%	95.0%	95.0%
27	83.6%	88.4%	95.0%	95.0%
28	87.4%	90.0%	95.0%	95.0%
29	91.2%	91.7%	95.0%	95.0%
30+	95.0%	95.0%	95.0%	95.0%

Guaranteed Issue Male:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	133.0%	76.0%	52.3%	65.6%	95.0%
2	129.2%	75.1%	53.2%	67.5%	95.0%
3	125.4%	74.1%	54.2%	70.3%	95.0%
4	121.6%	73.2%	55.1%	73.2%	95.0%
5	117.8%	72.2%	57.0%	76.0%	95.0%
6	115.0%	70.3%	58.9%	79.8%	95.0%
7	112.1%	68.4%	60.8%	83.6%	95.0%
8	109.3%	64.6%	61.8%	87.4%	95.0%
9	106.4%	60.8%	62.7%	91.2%	95.0%
10	103.6%	57.0%	63.7%	95.0%	95.0%
11	100.7%	53.2%	65.6%	95.0%	95.0%
12	98.8%	54.2%	67.5%	95.0%	95.0%
13	96.9%	55.1%	70.3%	95.0%	95.0%
14	95.0%	57.0%	73.2%	95.0%	95.0%
15	91.2%	58.0%	76.0%	95.0%	95.0%
16	88.8%	59.5%	80.6%	96.0%	96.0%
17	86.8%	62.1%	85.4%	97.0%	97.0%
18	85.2%	63.7%	90.2%	98.0%	98.0%
19	83.9%	65.3%	95.0%	99.0%	99.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Guaranteed Issue Female:

Policy Duration	Issue Age				
	< = 45	55	65	75	> = 84
1	154.0%	88.0%	60.5%	75.9%	110.0%
2	149.6%	86.9%	61.6%	78.1%	110.0%
3	145.2%	85.8%	62.7%	81.4%	110.0%
4	140.8%	84.7%	63.8%	84.7%	110.0%
5	136.4%	83.6%	66.0%	88.0%	110.0%
6	133.1%	81.4%	68.2%	92.4%	110.0%
7	129.8%	79.2%	70.4%	96.8%	110.0%
8	126.5%	74.8%	71.5%	101.2%	110.0%
9	123.2%	70.4%	72.6%	105.6%	110.0%
10	119.9%	66.0%	73.7%	110.0%	110.0%
11	116.6%	61.6%	75.9%	110.0%	110.0%
12	114.4%	62.7%	78.1%	110.0%	110.0%
13	112.2%	63.8%	81.4%	110.0%	110.0%
14	110.0%	66.0%	84.7%	110.0%	110.0%
15	105.6%	67.1%	88.0%	110.0%	110.0%
16	99.9%	67.0%	90.7%	108.0%	108.0%
17	94.8%	67.8%	93.3%	106.0%	106.0%
18	90.4%	67.6%	95.7%	104.0%	104.0%
19	86.4%	67.3%	97.9%	102.0%	102.0%
20	82.8%	67.0%	100.0%	100.0%	100.0%
21	81.3%	69.0%	100.0%	100.0%	100.0%
22	80.0%	71.0%	100.0%	100.0%	100.0%
23	79.1%	74.0%	100.0%	100.0%	100.0%
24	78.6%	77.0%	100.0%	100.0%	100.0%
25	84.0%	80.0%	100.0%	100.0%	100.0%
26	88.0%	84.0%	100.0%	100.0%	100.0%
27	92.0%	88.0%	100.0%	100.0%	100.0%
28	96.0%	92.0%	100.0%	100.0%	100.0%
29	98.0%	96.0%	100.0%	100.0%	100.0%
30+	100.0%	100.0%	100.0%	100.0%	100.0%

Factors for ages not listed above are interpolated.

We are also projecting 12 years of future mortality improvement based on scale AA, consistent with the 12 years of future morbidity improvement in our future claim projections.

Expenses

Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

6. Trend Assumptions

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

7. Marketing Method

The employees and other eligibles were marketed through the Employer, Union or Association as part of their corporate sponsored employee benefits package with the support of John Hancock representatives and direct mail.

8. Underwriting

Actively at Work employees were generally offered coverage on a Guaranteed Acceptance basis during limited enrollment periods. Other eligibles were underwritten using either simplified (short form) or full underwriting.

9. Premium Classes

The base policy premium rates vary by Issue age, LMB, and Inflation Option, as in the initial rate filing.

All premium factors related to the insured elected benefit design options, case size, commissions, or underwriting risk class remain unchanged from the initial rate filing, with the following exception: There was a 20% load on post issue date optional coverage increases to the insured's DMB. Our current new business rates do not include this load on post issue date option coverage. To maintain consistency with our current new business pricing, both the past and future optional coverage increases will no longer be loaded by 20%.

10. Premium Modalization Rules

Premiums are payable through payroll deduction, direct bill or automatic bank withdrawal. Monthly premium rates are illustrated in Appendices A, B, and C. The following factors are used to illustrate other modes, if applicable.

Frequency	Multiple of Monthly Premium
Monthly	1
Quarterly	3
Semi-annual	6
Annual	12

11. Issue Age Range

The issue age range is 18+ for all policy forms.

12. Area Factors

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

13. Average Annual Premium

The table below summarizes the average annual premium per certificate before and after the requested increase.

	Nationwide	Virginia	
Form	before the rate increase	before the rate increase	after the rate increase
GPB-COV-0002	1,140	1,130	1,225

14. Number of Certificate Holders

The table below summarizes, as of 12/31/2015, the number of certificates inforce and their 2015 annualized premium that will be affected by this rate increase in your state.

Form	Number of Certificates	2015 Annualized Premium
GPB-COV-0002	940	1,065,000

15. Reserves

Active Life Reserves have not been used in this rate increase demonstration. Minimum Statutory Claim reserves as of 12/31/2015 have been discounted to the date of incurral of each respective claim and included in the historical incurred claims. Incurred But Not Reported claim reserves as of 12/31/2015 have also been allocated to the calendar year of incurral and included in historic incurred claims.

16. Requested Rate Increase

The Company is requesting an average rate increase of 8.4%, which ranges from -5.4% to 13.5%. Rate increases were derived as follows:

1. The Company first determined the projected lifetime loss ratio for this form based on nationwide actual experience and projected future experience assuming all prior rate increase requests were approved in full and within three months of the original filing date. We then determined that an average rate increase amount of 8.4%, ranging from -5.3% to 13.5% (see Section 9 on why 20% load was removed on post issue date optional coverage increases to the insured's DMB), would be needed in order to revert to the lifetime loss ratio certified to in our 2010 inforce rate increase filing for this form.
2. We are no longer selling new business under this policy form, but we ensured that the proposed rate increases did not result in premium rates that exceed what could be reasonably estimated as new business rates for our Group forms. We determined such rates by applying a series of factors to the P-FACE(2009) policy form premium rates (which were the last set of Group LTC premium rates that were sold). One factor applied to P-FACE(2009) premium rates was a ratio of the most recent Traditional Retail premium rates filed in the Interstate Compact prior to Performance LTC (ICC12-LTC-12, filed in 2014) relative to the Retail LTC rates filed in 2010 (LTC-03). This was done because we believe that if new business for Group Long-Term Care was still being sold, premium rates would have increased by a comparable amount to our Retail business since 2010. Rates were increased by an additional 9.5% across the board, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016 since a 2016 experience study showed a need to raise rates by 9.5%. There is no impact to our proposed rate increase since our proposed premium rates fall below our assumed new business rates. These rates were then further adjusted for benefit differences and changes in underwriting guidelines and

risk classification (this is demonstrated in **Appendix A**). After the application of this restriction the average rate increase for the forms listed in this memo is 8.4%, ranging from -5.4% to 13.5%.

3. We ensured that the resulting overall increase in rates satisfied the rate stability rule ensuring no less than an 85% loss ratio on the rate increase portion, while applying the original loss ratio on the original rate schedule (as the original loss ratio was higher than 58%). This is demonstrated at the bottom of **Exhibit 1** where it can be seen that the sum of past and future projected incurred claims is not less than the sum of the original premium times the original loss ratio and the rate increase premium times the 85% loss ratio requirement.

Note that as shown at the bottom of Exhibit 1b, by requesting the current rate increase, we are complying with Virginia state regulation where the post rate increase future loss ratio (adjusted for Net Level Premium Reserves) is no less than 60% under original pricing interest rate assumption.

In **Appendix A** we reflect the proposed premium rates both with and without any additional cost as we believe any cost due to delayed implementation should not be subject to the new business rate restrictions.

Appendix B1 contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did not* elect an inflation reduction option as part of the 2010 rate increase filings. **Appendix B2** contains the new proposed rate tables for all policy forms included with this filing for those certificate holders that *did* elect an inflation reduction option as part of the 2010 rate increase filings. Please note that the actual rates implemented may vary slightly from those in Appendices B1 and B2 due to implementation rounding algorithms.

Some of our older group clients have certificates inforce under different policy forms, having opted for upgrading their pre-existing employee benefit plan to a new plan covered under a newer policy form. In those situations, we have offered internal replacement (plan upgrade) opportunities to existing certificate holders, whereby a certificate holder may have elected to lapse their original coverage and purchase the new plan coverage as a replacement. In those situations, the insured would be subject to the attained age (at the time of the replacement) premium rates for their new coverage but in some situations we would provide a premium credit to recognize the premium they had paid since their issue age for their original coverage under the prior plan. For these insureds, we will determine their new premium rate based on their historical original issue ages respectively for each layer of coverage. In a situation where the resulting rate increases are greater than those listed in Appendix A for their coverage, we will continue to offer them a premium credit in order to limit their respective rate increases to the amounts listed in Appendix A.

For those group clients that transferred to us from an external carrier, we will continue to recognize any assets transferred from the prior carrier. We will continue to provide these credits to the insureds within those groups and the rate increase will be calculated based on the insureds' net premium rate.

17. Analysis Performed

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

The original pricing assumptions for morbidity, voluntary termination rates, and mortality were as follows:

Morbidity

In developing claim cost assumptions, reference was made to the 1985 National Nursing Home Survey (TSA, 88-90 Reports), the 1982 and 1984 National Long-Term Care Surveys, the Channeling Demonstration, and the 1987 National Medical Expenditure Survey.

Below are the original sample annual claim costs for a GPB-COV-0002 policy, $10 daily benefit, and 5yr LMB:

Issue Age 45		
Age	**FPO**	**ABI**
45	7.29	8.11
50	5.91	8.38
55	8.92	16.19
60	12.53	28.98
65	23.03	67.08
70	46.75	171.82
75	89.96	419.63
80	186.77	1,106.87
85	361.30	2,725.70
90	647.45	6,216.95

Issue Age 50		
Age	FPO	ABI
50	6.84	7.61
55	8.79	12.51
60	12.36	22.39
65	22.71	51.82
70	46.09	132.74
75	88.70	324.20
80	184.16	855.14
85	356.25	2,105.81
90	638.40	4,803.06

Issue Age 60		
Age	FPO	ABI
60	13.63	15.16
65	22.01	30.84
70	44.67	78.99
75	85.97	192.91
80	178.49	508.83
85	345.29	1,253.01
90	618.76	2,857.94

Voluntary Terminations

The initial premium schedule was based on the originally filed pricing assumptions which were believed to be appropriate, given company and industry experience available, when the initial rate schedule was developed.

Duration	All Issue Ages
1	8.00%
2	6.00%
3	4.00%
4+	3.50%

Mortality

Pricing mortality rates were calculated as a 67% female / 33% male combination of the 1975-80 Basic Mortality Table:

Duration	Selection Factor
1	50.0%
2	80.0%

The following tables show in aggregate how our new assumptions (excluding the moderately adverse margin) compare to actual experience:

Morbidity

Experience period: Inception through 9/30/2012 for incidence, inception through 9/30/2011 for claim terminations and salvage

The following charts show key experience compared to revised assumptions.

Incidence

Duration	A/E
1-3	114%
4-6	106%
7-9	99%
10+	100%
Total	**102%**

Claim Terminations

Continuance	A/E
Total	**99%**

Salvage

Amount Paid	A/E
Total	**103%**

While we usually complete triennial studies, we found that our quarterly morbidity A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 100%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

Voluntary Lapses

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1	73%	100%
2	72%	101%
3-5	84%	97%
6-10	93%	103%
11+	100%	100%
Total	**85%**	**100%**

We increased ultimate lapse rates slightly (in the range of 0.1% to 0.2%), consistent with experience, which slightly lowered the loss ratio.
Note that we are no longer selling Group business. Early durations are no longer applicable.

Mortality

Experience period: 4/1/2009-3/31/2012

	A/E by Amount	
Duration	**UW**	**GI**
1-5	118%	105%
6-10	105%	104%
11-15	92%	101%
16+	98%	94%
Total	**100%**	**101%**

While we usually complete triennial studies, we found that our quarterly termination A/E from Q3-2013 to Q2-2015 (the point at which we would have started the next study) averaged 99%. Therefore, we are still comfortable with the assumptions set based on 2012 data.

18. Experience – Past & Future

Exhibit 1 contains nationwide past premium and claims experience and future premium and claim projections and illustrates that the anticipated lifetime loss ratio with the requested rate increase is 80.1%, well in excess of the minimum loss ratio of 60% as well as greater than the original pricing loss ratio of 77.6%. The lifetime loss ratio as of 12/31/2015 is calculated as the sum of accumulated past and discounted future claims divided by the sum of accumulated past and discounted future earned premium where accumulation and discounting occur at the maximum statutory valuation discount rate. In Exhibit 1, the proposed rate increase is applied historically (starting in calendar year 2012). Please refer to the cover letter for background on this modeling assumption.

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

Furthermore, **Exhibit 1** demonstrates that that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

1. Accumulated value of the initial earned premium times the original assumed lifetime loss ratio (which was higher than 58%),
2. 85% of the accumulated value of prior premium rate schedule increases,
3. Present value of future projected initial earned premium times the original assumed lifetime loss ratio, and
4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

Note that rate increases will only apply once the applicable group policy rate guarantee has expired.

19. History of Previous Rate Revisions

There was a rate increase requested in 2010 on this plan. However, because it only impacted certain benefit periods and inflation options, no certificate holders sitused in your state were impacted. Because the loss ratio is based on nationwide data and all benefit period/inflation options, we have assumed for the purposes of this filing that the 2010 rate increase was approved on time and in full by every state.

20. Ensuring No Cross-Subsidization Between States

We have ensured no state's rate increase approvals will subsidize other states' experience. Rate increases will vary by state, but only to reflect the timing and amount of prior rate increases approved by that state. This is accomplished by first backing-out all prior rate increases from our nationwide premium data. We then re-introduce prior rate increases with the amount and timing based on your state's prior approvals (as detailed in Section 19). The current proposed rate increases are then determined based on the amounts needed in order to achieve our target loss ratios where our targets reflect the lifetime loss ratios certified to in our prior filing.

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

21. Past Losses Testing

Preventing companies from recouping past losses was the subject of a recent discussion by the NAIC in late 2013. The accepted methodology, which was incorporated into the 2014 LTC Model Regulation, defines past losses as actual past claims less expected past claims when determining loss ratio compliance where expected past claims are defined as the following:

> Expected claims shall be calculated based on the original filing assumptions assumed until new assumptions are filed as part of a rate increase. New assumptions shall be used for all periods beyond each requested effective date of a rate increase regardless of whether or not the rate increase is approved. Expected claims are calculated for each calendar year based on the in-force during the calendar year. Expected claims shall include margins for moderately adverse experience; the margins included in the claims that were used to determine the lifetime loss ratio consistent with the original filing or as modified in any rate increase filing.

We apply this methodology in **Exhibit 1A**. The 'Adjusted Expected Incurred Claims' are initially calculated by applying the original pricing loss ratio to the actual earned premium in a given calendar year. Later, in years in which we filed for inforce rate increases, expected incurred claims are based on the new assumptions that were filed at that time.

22. Proposed Effective Date

These rates will not be effective until after we have satisfied the required 90 days advance notice to the policyholder and to the insureds.

23. Actuarial Certification

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualification standards for rendering this opinion and am familiar with the requirements for filing long-term care insurance premiums and filing for increases in long-term care insurance premiums. This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with applicable laws and regulations of the Commonwealth of Virginia and that the premiums are reasonable in relation to the benefits provided.

The preceding Actuarial Memorandum contains:

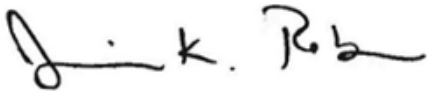
a) the assumptions on which this certification is based;
b) the adjustments to prior assumptions with an explanation of the reasons previous assumptions were not realized;
c) a lifetime projection of the prior premium rate schedules and incurred claims plus future expected premiums and claims which demonstrates that the revised premium rate schedule meets the loss ratios standards and necessary details of this state; and
d) disclosure of the manner, if any, in which reserves have been recognized.

If the requested premium rate schedule increase is implemented and the underlying assumptions are realized, no further premium rate schedule increases are anticipated.

I have reviewed and taken into consideration the policy design and coverage provided, and our current underwriting and claims adjudication processes.

In forming my opinion, I have used actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary. Based on these assumptions or statutory requirements where necessary, the premium rate filing is in compliance with the loss ratio standards of this state.

The basis for contract reserves has been previously filed and there is no anticipation of any changes.



Julie K. Robinson, FSA, MAAA, CFP®
Associate Actuary
John Hancock Life Insurance Company (U.S.A.)

Exhibit 1: Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience					
					Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	-	10,600	0%
	1991	-	-	-	-	13,706	0%	-	13,706	0%
	1992	-	-	-	-	130,947	0%	-	130,947	0%
	1993	24,454	281,316	9%	-	452,593	0%	-	452,593	0%
	1994	27,056	277,767	10%	-	485,283	0%	-	485,283	0%
	1995	30,873	260,385	12%	2,362	529,250	0%	2,362	529,250	0%
	1996	39,951	275,694	14%	-	571,865	0%	-	571,865	0%
	1997	60,502	340,026	18%	1,018	701,676	0%	1,018	701,676	0%
	1998	406,653	2,172,502	19%	1,313,565	2,608,033	50%	1,313,565	2,608,033	50%
	1999	1,375,485	7,817,601	18%	1,187,766	8,837,184	13%	1,187,766	8,837,184	13%
	2000	2,329,223	13,484,244	17%	2,259,297	13,158,860	17%	2,259,297	13,158,860	17%
	2001	2,460,490	14,457,922	17%	1,257,275	14,097,318	9%	1,257,275	14,097,318	9%
	2002	2,722,355	14,703,453	19%	703,751	14,385,372	5%	703,751	14,385,372	5%
	2003	3,210,454	15,177,636	21%	1,915,689	14,975,334	13%	1,915,689	14,975,334	13%
	2004	3,738,588	15,637,115	24%	4,384,408	15,549,321	28%	4,384,408	15,549,321	28%
	2005	4,267,186	16,245,505	26%	2,274,982	16,365,989	14%	2,274,982	16,365,989	14%
Historical	2006	4,751,223	16,735,040	28%	3,412,276	17,134,513	20%	3,412,276	17,134,513	20%
Experience	2007	5,649,022	19,785,983	29%	2,930,445	20,443,071	14%	2,930,445	20,443,071	14%
	2008	6,409,192	21,943,336	29%	5,635,647	22,839,876	25%	5,635,647	22,839,876	25%
	2009	6,996,212	22,353,012	31%	7,391,751	23,661,335	31%	7,391,751	23,661,335	31%
	2010	7,665,257	22,493,869	34%	10,315,052	24,308,205	42%	10,315,052	24,308,205	42%
	2011	8,398,064	22,672,561	37%	7,630,583	24,953,275	31%	7,630,583	24,953,275	31%
	2012	9,218,261	23,074,476	40%	6,353,771	26,492,112	24%	6,353,771	27,774,106	23%
	2013	9,984,633	22,542,561	44%	8,147,104	26,448,191	31%	8,147,104	27,698,829	29%
	2014	10,856,997	22,468,465	48%	11,900,827	27,056,178	44%	11,900,827	28,284,570	42%
	2015	11,838,133	22,923,431	52%	13,947,743	28,200,539	49%	13,947,743	30,519,537	46%
	2016	12,661,559	21,680,735	58%	11,214,553	27,602,710	41%	11,220,309	29,859,942	38%
	2017	13,512,298	20,371,206	66%	12,509,192	26,905,225	46%	12,483,421	28,994,449	43%
Projected	2018	14,391,599	19,138,785	75%	13,987,417	26,210,290	53%	13,865,045	28,033,527	49%
Future	2019	15,281,761	17,954,654	85%	15,622,311	25,510,229	61%	15,492,880	27,283,815	57%
Experience	2020	16,165,566	16,808,883	96%	17,311,273	24,798,055	70%	17,172,676	26,522,137	65%
	2021	17,027,132	15,700,846	108%	18,990,141	24,069,233	79%	18,841,047	25,743,545	73%
	2022	17,898,591	14,631,066	122%	20,762,310	23,320,771	89%	20,600,440	24,944,745	83%
	2023	18,774,991	13,599,651	138%	22,694,873	22,550,279	101%	22,517,544	24,123,068	93%
	2024	19,609,276	12,607,286	156%	24,672,780	21,755,739	113%	24,478,890	23,276,295	105%
	2025	20,407,533	11,654,578	175%	26,641,808	20,935,024	127%	26,430,933	22,402,095	118%
	2026	21,160,319	10,741,716	197%	28,548,959	20,087,362	142%	28,321,274	21,499,556	132%
	2027	21,877,203	9,869,599	222%	30,446,563	19,213,398	158%	30,201,601	20,569,265	147%
	2028	22,542,544	9,039,181	249%	32,511,190	18,314,489	178%	32,246,644	19,612,587	164%
	2029	23,076,050	8,250,828	280%	34,530,123	17,392,660	199%	34,246,252	18,631,572	184%
	2030	23,505,518	7,504,655	313%	36,421,638	16,454,131	221%	36,119,521	17,632,721	205%
	2031	23,823,899	6,801,083	350%	38,197,539	15,504,553	246%	37,878,042	16,621,941	228%
	2032	24,033,545	6,140,524	391%	39,800,770	14,548,784	274%	39,465,275	15,604,289	253%
	2033	24,141,451	5,522,687	437%	40,965,786	13,591,825	301%	40,618,614	14,584,976	278%
	2034	24,080,205	4,947,039	487%	41,703,023	12,639,291	330%	41,348,224	13,569,883	305%
	2035	23,904,347	4,413,346	542%	42,398,520	11,696,804	362%	42,035,745	12,564,928	335%
	2036	23,581,205	3,920,744	601%	42,910,425	10,770,137	398%	42,540,970	11,576,185	367%
	2037	23,141,315	3,468,223	667%	43,081,909	9,865,794	437%	42,708,759	10,610,563	403%
	2038	22,601,899	3,054,533	740%	42,917,195	8,991,267	477%	42,543,355	9,676,089	440%
	2039	21,937,576	2,678,216	819%	42,605,148	8,151,524	523%	42,231,557	8,778,070	481%
	2040	21,201,322	2,338,072	907%	41,989,346	7,350,791	571%	41,618,776	7,921,059	525%
	2041	20,345,058	2,032,473	1001%	40,898,378	6,593,097	620%	40,535,556	7,109,414	570%
	2042	19,397,620	1,758,836	1103%	39,511,068	5,882,084	672%	39,158,716	6,347,086	617%
Values as of 12/31/2015 (discounted at maximum statutory valuation rates)										
	Past :	135,910,788	451,883,061	30.1%	120,516,105	484,587,308	24.9%	120,516,105	491,139,837	24.5%
	Future :	360,549,501	187,541,196	192.3%	552,393,354	319,578,153	172.9%	547,863,277	342,998,824	159.7%
	Lifetime :	496,460,289	639,424,258	77.6%	672,909,459	804,165,461	83.7%	668,379,382	834,138,661	80.1%

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

			Accum Value of Past Initial Prm x 77.6% =	373,942,349
			Present Value of Future Initial Prm x 77.6% =	238,999,151
Accum. Value of Past Incurred Claims =	120,516,105		Accum Value of Prior Increases x 85.0% =	8,087,403
Present Value of Future Incurred Claims =	547,863,277		Present Value of Future Increases x 85.0% =	29,899,520
Total =	668,379,382	>=	Total =	650,928,423

Exhibit 1A: Pass Losses Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Loss Ratios to Apply to Actual Premium			Adjusted	Before Proposed Increase			With Proposed Rate Increase		
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio*	Expected Incurred Claims	Incurred Claims	Earned Premium	Incurred Loss Ratio*	Incurred Claims	Earned Premium	Incurred Loss Ratio*
Original Pricing	1993	24,454	281,316	9%	39,343	0	452,593	0%	0	452,593	0%
	1994	27,056	277,767	10%	47,270	0	485,283	0%	0	485,283	0%
	1995	30,873	260,385	12%	62,751	2,362	529,250	0%	2,362	529,250	0%
	1996	39,951	275,694	14%	82,870	0	571,865	0%	0	571,865	0%
	1997	60,502	340,026	18%	124,852	1,018	701,676	0%	1,018	701,676	0%
	1998	406,653	2,172,502	19%	488,176	1,313,565	2,608,033	50%	1,313,565	2,608,033	50%
	1999	1,375,485	7,817,601	18%	1,554,878	1,187,766	8,837,184	13%	1,187,766	8,837,184	13%
	2000	2,329,223	13,484,244	17%	2,273,017	2,259,297	13,158,860	17%	2,259,297	13,158,860	17%
	2001	2,460,490	14,457,922	17%	2,399,122	1,257,275	14,097,318	9%	1,257,275	14,097,318	9%
	2002	2,722,355	14,703,453	19%	2,663,462	703,751	14,385,372	5%	703,751	14,385,372	5%
	2003	3,210,454	15,177,636	21%	3,167,662	1,915,689	14,975,334	13%	1,915,689	14,975,334	13%
	2004	3,738,588	15,637,115	24%	3,717,598	4,384,408	15,549,321	28%	4,384,408	15,549,321	28%
	2005	4,267,186	16,245,505	26%	4,298,833	2,274,982	16,365,989	14%	2,274,982	16,365,989	14%
	2006	4,751,223	16,735,040	28%	4,864,636	3,412,276	17,134,513	20%	3,412,276	17,134,513	20%
	2007	5,649,022	19,785,983	29%	5,836,625	2,930,445	20,443,071	14%	2,930,445	20,443,071	14%
	2008	6,409,192	21,943,336	29%	6,671,052	5,635,647	22,839,876	25%	5,635,647	22,839,876	25%
	2009	6,996,212	22,353,012	31%	7,405,701	7,391,751	23,661,335	31%	7,391,751	23,661,335	31%
2010 RI	2010	6,050,219	22,647,756	27%	6,493,798	10,315,052	24,308,205	42%	10,315,052	24,308,205	42%
	2011	6,418,138	21,655,787	30%	7,395,416	7,630,583	24,953,275	31%	7,630,583	24,953,275	31%
	2012	7,078,243	21,030,369	34%	8,916,515	6,353,771	26,492,112	24%	6,353,771	27,774,106	23%
	2013	7,769,896	21,211,382	37%	9,688,181	8,147,104	26,448,191	31%	8,147,104	27,698,829	29%
	2014	8,502,663	20,607,456	41%	11,163,414	11,900,827	27,056,178	44%	11,900,827	28,284,570	42%
	2015	9,325,474	20,013,051	47%	13,140,594	13,947,743	28,200,539	49%	13,947,743	30,519,537	46%
Projected Future Experience	2016					11,214,553	27,602,710	41%	11,220,309	29,859,942	38%
	2017					12,509,192	26,905,225	46%	12,483,421	28,994,449	43%
	2018					13,987,417	26,210,290	53%	13,865,045	28,033,527	49%
	2019					15,622,311	25,510,229	61%	15,492,880	27,283,815	57%
	2020					17,311,273	24,798,055	70%	17,172,676	26,522,137	65%
	2021					18,990,141	24,069,233	79%	18,841,047	25,743,545	73%
	2022					20,762,310	23,320,771	89%	20,600,440	24,944,745	83%
	2023					22,694,873	22,550,279	101%	22,517,544	24,123,068	93%
	2024					24,672,780	21,755,739	113%	24,478,890	23,276,295	105%
	2025					26,641,808	20,935,024	127%	26,430,933	22,402,095	118%
	2026					28,548,959	20,087,362	142%	28,321,274	21,499,556	132%
	2027					30,446,563	19,213,398	158%	30,201,601	20,569,265	147%
	2028					32,511,190	18,314,489	178%	32,246,644	19,612,587	164%
	2029					34,530,123	17,392,660	199%	34,246,252	18,631,572	184%
	2030					36,421,638	16,454,131	221%	36,119,521	17,632,721	205%
	2031					38,197,539	15,504,553	246%	37,878,042	16,621,941	228%
	2032					39,800,770	14,548,784	274%	39,465,275	15,604,289	253%
	2033					40,965,786	13,591,825	301%	40,618,614	14,584,976	278%
	2034					41,703,023	12,639,291	330%	41,348,224	13,569,883	305%
	2035					42,398,520	11,696,804	362%	42,035,745	12,564,928	335%
	2036					42,910,425	10,770,137	398%	42,540,970	11,576,185	367%
	2037					43,081,909	9,865,794	437%	42,708,759	10,610,563	403%
	2038					42,917,195	8,991,267	477%	42,543,355	9,676,089	440%
	2039					42,605,148	8,151,524	523%	42,231,557	8,778,070	481%
	2040					41,989,346	7,350,791	571%	41,618,776	7,921,059	525%
	2041					40,898,378	6,593,097	620%	40,535,556	7,109,414	570%
	2042					39,511,068	5,882,084	672%	39,158,716	6,347,086	617%
	2043					38,028,912	5,220,203	728%	37,687,696	5,636,780	669%
	2044					36,523,928	4,608,276	793%	36,193,832	4,979,465	727%
	2045					34,904,419	4,046,394	863%	34,586,610	4,375,355	790%
Value as of 12/31/15*:											
	Past				133,205,149	120,516,105	484,587,308	24.9%	120,516,105	491,139,837	24.5%
	Future					552,393,354	319,578,153	172.9%	547,863,277	342,998,824	159.7%
	Lifetime					672,909,459	804,165,461	83.7%	668,379,382	834,138,661	80.1%

*discounted at maximum statutory valuation rates

Test: Total Incurred Claims exceeds the Total Initial Premiums x Original Pricing Loss Ratio (instead of 58%) + Increased Premiums x 85%

			Accum Value of Past Initial Prm x 77.6% =	373,942,349
Accum Value of Minimum (Past Incurred Claims,			Present Value of Future Initial Prm x 77.6% =	238,999,151
Adjusted Originally Expected Incurred Claims) =	120,516,105		Accum Value of Prior Increases x 85.0% =	8,087,403
Present Value of Future Incurred Claims =	547,863,277		Present Value of Future Increases x 85.0% =	29,899,520
Total =	668,379,382	> =	Total	650,928,423

Exhibit 1b: Nationwide Loss Ratio Exhibit
Group Long-Term Care (GPB-Cov-0002)

		Original Assumptions			Historical & Projected Experience				
					Before Proposed Increase			With Proposed Rate Increase	
	Calendar Year	Incurred Claims	Earned Premium	Incurred Loss Ratio	Incurred Claims	Earned Premium	Incurred Loss Ratio	Earned Premium	Incurred Loss Ratio
	1990	-	-	-	-	10,600	0%	10,600	0%
	1991	-	-	-	-	13,706	0%	13,706	0%
	1992	-	-	-	-	130,947	0%	130,947	0%
	1993	22,669	281,316	8%	-	452,593	0%	452,593	0%
	1994	25,189	277,767	9%	-	485,283	0%	485,283	0%
	1995	28,811	260,385	11%	2,193	529,250	0%	529,250	0%
	1996	37,314	275,694	14%	-	571,865	0%	571,865	0%
	1997	56,334	340,026	17%	919	701,676	0%	701,676	0%
	1998	373,334	2,172,502	17%	1,197,010	2,608,033	46%	2,608,033	46%
	1999	1,262,039	7,817,601	16%	1,064,546	8,837,184	12%	8,837,184	12%
	2000	2,128,606	13,484,244	16%	2,014,580	13,158,860	15%	13,158,860	15%
	2001	2,255,732	14,457,922	16%	1,150,909	14,097,318	8%	14,097,318	8%
	2002	2,503,865	14,703,453	17%	639,710	14,385,372	4%	14,385,372	4%
	2003	2,959,247	15,177,636	19%	1,758,729	14,975,334	12%	14,975,334	12%
	2004	3,449,972	15,637,115	22%	3,969,329	15,549,321	26%	15,549,321	26%
	2005	3,941,024	16,245,505	24%	2,076,144	16,365,989	13%	16,365,989	13%
Historical	2006	4,391,987	16,735,040	26%	3,115,422	17,134,513	18%	17,134,513	18%
Experience	2007	5,223,845	19,785,983	26%	2,691,952	20,443,071	13%	20,443,071	13%
	2008	5,935,391	21,943,336	27%	5,128,878	22,839,876	22%	22,839,876	22%
	2009	6,485,578	22,353,012	29%	6,770,512	23,661,335	29%	23,661,335	29%
	2010	7,109,993	22,493,869	32%	9,420,275	24,308,205	39%	24,308,205	39%
	2011	7,796,365	22,672,561	34%	6,981,761	24,953,275	28%	24,953,275	28%
	2012	8,563,343	23,074,476	37%	5,857,884	26,492,112	22%	27,774,106	21%
	2013	9,286,190	22,542,561	41%	7,539,079	26,448,191	29%	27,698,829	27%
	2014	10,110,168	22,468,465	45%	10,923,861	27,056,178	40%	28,284,570	39%
	2015	11,035,505	22,923,431	48%	12,875,033	28,200,539	46%	30,519,537	42%
	2016	11,812,450	21,680,735	54%	10,395,546	27,602,710	38%	29,859,942	35%
	2017	12,614,103	20,371,206	62%	11,619,132	26,905,225	43%	28,994,449	40%
Projected	2018	13,446,690	19,138,785	70%	13,012,593	26,210,290	50%	28,033,527	46%
Future	2019	14,287,180	17,954,654	80%	14,550,755	25,510,229	57%	27,283,815	53%
Experience	2020	15,120,322	16,808,883	90%	16,137,135	24,798,055	65%	26,522,137	60%
	2021	15,934,823	15,700,846	101%	17,711,748	24,069,233	74%	25,743,545	68%
	2022	16,763,460	14,631,066	115%	19,374,013	23,320,771	83%	24,944,745	77%
	2023	17,602,521	13,599,651	129%	21,186,091	22,550,279	94%	24,123,068	87%
	2024	18,392,537	12,607,286	146%	23,043,116	21,755,739	106%	23,276,295	98%
	2025	19,147,576	11,654,578	164%	24,891,883	20,935,024	119%	22,402,095	110%
	2026	19,863,204	10,741,716	185%	26,681,176	20,087,362	133%	21,499,556	123%
	2027	20,552,296	9,869,599	208%	28,463,740	19,213,398	148%	20,569,265	137%
	2028	21,201,926	9,039,181	235%	30,404,855	18,314,489	166%	19,612,587	154%
	2029	21,709,558	8,250,828	263%	32,305,702	17,392,660	186%	18,631,572	172%
	2030	22,120,109	7,504,655	295%	34,084,760	16,454,131	207%	17,632,721	192%
	2031	22,428,215	6,801,083	330%	35,752,678	15,504,553	231%	16,621,941	213%
	2032	22,641,427	6,140,524	369%	37,261,526	14,548,784	256%	15,604,289	237%
	2033	22,765,927	5,522,687	412%	38,365,462	13,591,825	282%	14,584,976	261%
	2034	22,713,072	4,947,039	459%	39,069,149	12,639,291	309%	13,569,883	286%
	2035	22,561,283	4,413,346	511%	39,727,671	11,696,804	340%	12,564,928	314%
	2036	22,263,230	3,920,744	568%	40,211,252	10,770,137	373%	11,576,185	344%
	2037	21,853,664	3,468,223	630%	40,377,915	9,865,794	409%	10,610,563	377%
	2038	21,356,830	3,054,533	699%	40,232,324	8,991,267	447%	9,676,089	412%
	2039	20,737,407	2,678,216	774%	39,946,601	8,151,524	490%	8,778,070	451%
	2040	20,061,899	2,338,072	858%	39,374,819	7,350,791	536%	7,921,059	493%
	2041	19,257,157	2,032,473	947%	38,357,538	6,593,097	582%	7,109,414	535%
	2042	18,358,828	1,758,836	1044%	37,065,769	5,882,084	630%	6,347,086	579%

Net Level Premium Reserves (based on original pricing assumptions and discount rates)	**163,772,628**
Future Loss Ratio adjusted for Net Level Premium Reserves	**63%**

Appendix A - Comparison to New Business Rates (GPB-COV-0002)

Rates are shown for a 90-day EP, 60% HHC benefit, and are per $5 (for a $200 monthly benefit)

Inflation Option: Future Purchase Option

New Business Rates adjusted for Benefit Differences* :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.80	0.92	1.00	1.12	1.18	1.96
30	0.84	0.97	1.06	1.17	1.24	1.96
31	0.90	1.03	1.06	1.17	1.24	1.96
32	0.90	1.03	1.10	1.23	1.30	2.01
33	0.90	1.03	1.10	1.23	1.30	2.01
34	0.90	1.03	1.16	1.29	1.37	2.14
35	0.90	1.03	1.16	1.29	1.37	2.15
36	0.90	1.03	1.16	1.29	1.37	2.17
37	0.90	1.03	1.23	1.36	1.44	2.17
38	0.90	1.04	1.23	1.37	1.45	2.33
39	0.90	1.04	1.23	1.39	1.47	2.38
40	0.90	1.04	1.24	1.40	1.48	2.42
41	0.93	1.11	1.27	1.44	1.53	2.51
42	0.93	1.12	1.38	1.58	1.67	2.61
43	1.00	1.22	1.41	1.62	1.72	2.71
44	1.11	1.24	1.54	1.68	1.78	2.83
45	1.21	1.35	1.58	1.83	1.94	2.96
46	1.22	1.38	1.65	1.91	2.02	3.11
47	1.35	1.52	1.71	2.00	2.11	3.27
48	1.48	1.57	1.88	2.20	2.32	3.46
49	1.50	1.71	1.96	2.30	2.43	3.52
50	1.65	1.77	2.04	2.42	2.55	3.74
51	1.71	1.85	2.19	2.59	2.74	3.91
52	1.88	2.05	2.32	2.78	2.94	4.23
53	1.96	2.16	2.59	3.10	3.28	4.46
54	2.17	2.41	2.76	3.32	3.51	4.69
55	2.25	2.53	2.95	3.57	3.77	4.95
56	2.38	2.76	3.14	3.79	4.01	5.36
57	2.54	2.87	3.34	4.02	4.25	5.66
58	2.72	3.12	3.55	4.18	4.42	6.02
59	2.77	3.29	3.82	4.48	4.74	6.41
60	2.99	3.48	4.12	4.71	4.98	6.88
61	3.20	3.82	4.43	5.12	5.42	7.47
62	3.44	4.06	4.80	5.62	5.94	8.19
63	3.63	4.50	5.23	6.17	6.52	8.86
64	3.96	4.85	5.72	6.83	7.22	9.67
65	4.22	5.28	6.16	7.42	7.84	10.57
66	4.65	5.75	6.73	7.93	8.38	11.45
67	5.03	6.22	7.29	8.41	8.90	12.34
68	5.51	6.64	7.97	9.04	9.56	13.42
69	6.06	7.31	8.68	9.57	10.12	14.43
70	6.62	7.84	9.40	10.25	10.83	15.65
71	7.34	8.66	10.43	11.14	11.78	17.54
72	8.12	9.51	11.57	12.15	12.84	19.63
73	8.98	10.48	12.77	13.28	14.04	21.96
74	10.02	11.55	14.25	14.49	15.32	24.62
75	11.04	12.77	15.75	15.85	16.75	27.56
76	12.27	14.41	17.93	17.97	19.00	31.10
77	13.72	16.33	20.26	20.39	21.55	35.33
78	15.31	18.36	23.03	23.15	24.47	39.88
79	17.11	20.77	26.08	26.22	27.72	45.19
80	28.37	23.41	29.61	29.79	31.50	51.06
81	30.63	25.72	32.58	32.81	34.68	56.13
82	32.72	27.80	35.21	35.49	37.52	60.71
83	35.54	31.06	39.36	39.63	41.90	67.85
84	38.15	33.98	43.17	43.45	45.94	74.33

GPB-COV-0002 Rates after Requested Rate Increases
excluding additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.32	0.38	0.44	0.46	0.48	0.56
30	0.32	0.38	0.44	0.46	0.48	0.56
31	0.32	0.38	0.44	0.46	0.48	0.56
32	0.32	0.38	0.44	0.46	0.48	0.56
33	0.33	0.40	0.46	0.49	0.50	0.59
34	0.35	0.41	0.48	0.51	0.53	0.62
35	0.36	0.43	0.51	0.53	0.55	0.65
36	0.38	0.45	0.53	0.56	0.58	0.68
37	0.40	0.47	0.56	0.58	0.60	0.71
38	0.41	0.50	0.58	0.61	0.63	0.75
39	0.43	0.52	0.61	0.64	0.66	0.78
40	0.45	0.54	0.64	0.67	0.70	0.82
41	0.48	0.58	0.69	0.72	0.75	0.88
42	0.52	0.62	0.74	0.77	0.80	0.94
43	0.55	0.67	0.79	0.83	0.86	1.01
44	0.59	0.72	0.85	0.89	0.92	1.09
45	0.64	0.77	0.91	0.95	0.99	1.16
46	0.68	0.83	0.97	1.02	1.06	1.25
47	0.73	0.89	1.05	1.10	1.14	1.34
48	0.78	0.95	1.12	1.18	1.22	1.44
49	0.84	1.02	1.20	1.26	1.31	1.54
50	0.90	1.09	1.29	1.36	1.40	1.65
51	0.96	1.17	1.39	1.46	1.51	1.77
52	1.03	1.26	1.49	1.56	1.62	1.90
53	1.10	1.35	1.59	1.68	1.73	2.04
54	1.18	1.45	1.71	1.80	1.86	2.19
55	1.27	1.55	1.84	1.93	2.00	2.34
56	1.36	1.66	1.97	2.07	2.14	2.51
57	1.46	1.79	2.11	2.22	2.30	2.70
58	1.64	2.01	2.38	2.50	2.58	3.03
59	1.84	2.26	2.67	2.81	2.90	3.40
60	2.07	2.54	3.01	3.16	3.26	3.82
61	2.33	2.86	3.38	3.55	3.66	4.29
62	2.62	3.22	3.80	3.99	4.12	4.82
63	2.95	3.62	4.28	4.48	4.63	5.41
64	3.32	4.07	4.81	5.04	5.20	6.04
65	3.73	4.58	5.41	5.67	5.84	6.57
66	4.20	5.15	6.08	6.37	6.57	7.17
67	4.72	5.80	6.84	7.16	7.38	7.81
68	5.17	6.35	7.49	7.84	8.09	8.52
69	5.65	6.95	8.20	8.59	8.86	9.30
70	6.18	7.61	8.99	9.41	9.70	10.18
71	6.76	8.33	9.84	10.31	10.62	11.37
72	7.39	9.12	10.78	11.29	11.64	12.77
73	8.13	10.04	11.87	12.43	12.81	14.34
74	8.93	11.05	13.08	13.69	14.10	16.10
75	9.82	12.16	14.40	15.07	15.52	18.06
76	10.79	13.39	15.85	16.59	17.09	19.87
77	11.86	14.74	17.46	18.27	18.81	21.87
78	11.86	14.74	17.46	18.27	18.81	21.67
79	11.86	14.74	17.46	18.27	18.81	20.69
80	11.86	14.74	17.46	18.27	18.81	19.70
81	11.86	14.74	17.46	18.27	18.81	19.70
82	11.86	14.74	17.46	18.27	18.81	19.70
83	11.86	14.74	17.46	18.27	18.81	19.70
84	11.86	14.74	17.46	18.27	18.81	19.70

GPB-COV-0002 Rates after Requested Rate Increases
including additional rate increase due to cost of delay :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	0.32	0.38	0.44	0.46	0.48	0.56
30	0.32	0.38	0.44	0.46	0.48	0.56
31	0.32	0.38	0.44	0.46	0.48	0.56
32	0.32	0.38	0.44	0.46	0.48	0.56
33	0.33	0.40	0.46	0.49	0.50	0.59
34	0.35	0.41	0.48	0.51	0.53	0.62
35	0.36	0.43	0.51	0.53	0.55	0.65
36	0.38	0.45	0.53	0.56	0.58	0.68
37	0.40	0.47	0.56	0.58	0.60	0.71
38	0.41	0.50	0.58	0.61	0.63	0.75
39	0.43	0.52	0.61	0.64	0.66	0.78
40	0.45	0.54	0.64	0.67	0.70	0.82
41	0.48	0.58	0.69	0.72	0.75	0.88
42	0.52	0.62	0.74	0.77	0.80	0.94
43	0.55	0.67	0.79	0.83	0.86	1.01
44	0.59	0.72	0.85	0.89	0.92	1.09
45	0.64	0.77	0.91	0.95	0.99	1.16
46	0.68	0.83	0.97	1.02	1.06	1.25
47	0.73	0.89	1.05	1.10	1.14	1.34
48	0.78	0.95	1.12	1.18	1.22	1.44
49	0.84	1.02	1.20	1.26	1.31	1.54
50	0.90	1.09	1.29	1.36	1.40	1.65
51	0.96	1.17	1.39	1.46	1.51	1.77
52	1.03	1.26	1.49	1.56	1.62	1.90
53	1.10	1.35	1.59	1.68	1.73	2.04
54	1.18	1.45	1.71	1.80	1.86	2.19
55	1.27	1.55	1.84	1.93	2.00	2.34
56	1.36	1.66	1.97	2.07	2.14	2.51
57	1.46	1.79	2.11	2.22	2.30	2.70
58	1.64	2.01	2.38	2.50	2.58	3.03
59	1.84	2.26	2.67	2.81	2.90	3.40
60	2.07	2.54	3.01	3.16	3.26	3.82
61	2.33	2.86	3.38	3.55	3.66	4.29
62	2.62	3.22	3.80	3.99	4.12	4.82
63	2.95	3.62	4.28	4.48	4.63	5.41
64	3.32	4.07	4.81	5.04	5.20	6.04
65	3.73	4.58	5.41	5.67	5.84	6.57
66	4.20	5.15	6.08	6.37	6.57	7.17
67	4.72	5.80	6.84	7.16	7.38	7.81
68	5.17	6.35	7.49	7.84	8.09	8.52
69	5.65	6.95	8.20	8.59	8.86	9.30
70	6.18	7.61	8.99	9.41	9.70	10.18
71	6.76	8.33	9.84	10.31	10.62	11.37
72	7.39	9.12	10.78	11.29	11.64	12.77
73	8.13	10.04	11.87	12.43	12.81	14.34
74	8.93	11.05	13.08	13.69	14.10	16.10
75	9.82	12.16	14.40	15.07	15.52	18.06
76	10.79	13.39	15.85	16.59	17.09	19.87
77	11.86	14.74	17.46	18.27	18.81	21.87
78	11.86	14.74	17.46	18.27	18.81	21.67
79	11.86	14.74	17.46	18.27	18.81	20.69
80	11.86	14.74	17.46	18.27	18.81	19.70
81	11.86	14.74	17.46	18.27	18.81	19.70
82	11.86	14.74	17.46	18.27	18.81	19.70
83	11.86	14.74	17.46	18.27	18.81	19.70
84	11.86	14.74	17.46	18.27	18.81	19.70

GPB-COV-0002 2016 Rate Increases (%) :

Issue Age	Benefit Period 2	3	5	6	7	10
18-29	14%	14%	14%	14%	14%	14%
30	14%	14%	14%	14%	14%	14%
31	14%	14%	14%	14%	14%	14%
32	14%	14%	14%	14%	14%	14%
33	14%	14%	14%	14%	14%	14%
34	14%	14%	14%	14%	14%	14%
35	14%	14%	14%	14%	14%	14%
36	14%	14%	14%	14%	14%	14%
37	14%	14%	14%	14%	14%	14%
38	14%	14%	14%	14%	14%	14%
39	14%	14%	14%	14%	14%	14%
40	14%	14%	14%	14%	14%	14%
41	14%	14%	14%	14%	14%	14%
42	14%	14%	14%	14%	14%	14%
43	14%	14%	14%	14%	14%	14%
44	14%	14%	14%	14%	14%	14%
45	14%	14%	14%	14%	14%	14%
46	14%	14%	14%	14%	14%	14%
47	14%	14%	14%	14%	14%	14%
48	14%	14%	14%	14%	14%	14%
49	14%	14%	14%	14%	14%	14%
50	14%	14%	14%	14%	14%	14%
51	14%	14%	14%	14%	14%	14%
52	14%	14%	14%	14%	14%	14%
53	14%	14%	14%	14%	14%	14%
54	14%	14%	14%	14%	14%	14%
55	14%	14%	14%	14%	14%	14%
56	14%	14%	14%	14%	14%	14%
57	14%	14%	14%	14%	14%	14%
58	14%	14%	14%	14%	14%	14%
59	14%	14%	14%	14%	14%	14%
60	14%	14%	14%	14%	14%	14%
61	14%	14%	14%	14%	14%	14%
62	14%	14%	14%	14%	14%	14%
63	14%	14%	14%	14%	14%	14%
64	14%	14%	14%	14%	14%	14%
65	14%	14%	14%	14%	14%	14%
66	14%	14%	14%	14%	14%	14%
67	14%	14%	14%	14%	14%	14%
68	14%	14%	14%	14%	14%	14%
69	14%	14%	14%	14%	14%	14%
70	14%	14%	14%	14%	14%	14%
71	14%	14%	14%	14%	14%	14%
72	14%	14%	14%	14%	14%	14%
73	14%	14%	14%	14%	14%	14%
74	14%	14%	14%	14%	14%	14%
75	14%	14%	14%	14%	14%	14%
76	14%	14%	14%	14%	14%	14%
77	14%	14%	14%	14%	14%	14%
78	14%	14%	14%	14%	14%	14%
79	14%	14%	14%	14%	14%	14%
80	14%	14%	14%	14%	14%	14%
81	14%	14%	14%	14%	14%	14%
82	14%	14%	14%	14%	14%	14%
83	14%	14%	14%	14%	14%	14%
84	14%	14%	14%	14%	14%	14%

<u>* Benefit Differences between GPB-COV-0002 and P-FACE (2009):</u>

- Benefit differences that were adjusted for include: Homemaker benefit, Informal Care, ROB, and Stay-at-Home benefits
- P-FACE 2009 Group rates are approximated by applying the ratio of [ICC12-LTC-12 / LTC-03] Retail rates to P-FACE 2009 rates (P-FACE 2009 was the last Group LTC product offered, but would increase by a comparable amount relative to Retail LTC products).
- ICC12-LTC-12 10yr and Lifetime rates are approximated by applying the ratio of [LTC-03 Lifetime (or 10yr) / LTC-03 6yr] to the ICC12-LTC-12 6yr rates (LTC-03 was the last product in which we offered 10yr or Lifetime benefit period options).
- An additional 3% factor was applied to account reflect differences in EP: LTC-03 has an EP where 1 day of HHC = 7 days towards EP, and ICC12-LTC-12 is a true service-day EP
- ICC12-LTC-12 unisex rates are determined by assuming a 60% female / 40% male mix of business.
- P-FACE 2009 rates were increased by an additional 9.5%, accounting for the average increase to premium rates for ICC12-LTC-12 if they were still being sold in 2016.

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

GPB-COV-0002

Premiums to be used only with those
that have not previously elected an inflation decrease option

Monthly $40 Base Rates
50% Home Health Care Benefit

BP ► Age ▼	FPO Base					
	2 Years	3 Years	5 Years	6 Years	7 Years	10 Years
18-29	3.80	4.26	4.74	4.91	5.05	5.89
30	3.80	4.26	4.74	4.91	5.05	5.89
31	3.80	4.26	4.74	4.91	5.05	5.89
32	3.80	4.26	4.74	4.91	5.05	5.89
33	3.91	4.39	4.90	5.09	5.22	6.10
34	4.02	4.53	5.07	5.26	5.41	6.32
35	4.14	4.68	5.24	5.44	5.59	6.55
36	4.26	4.82	5.42	5.63	5.79	6.78
37	4.38	4.98	5.60	5.83	5.99	7.02
38	4.50	5.13	5.79	6.03	6.20	7.27
39	4.63	5.29	5.99	6.24	6.42	7.53
40	4.77	5.46	6.19	6.45	6.65	7.80
41	5.04	5.80	6.58	6.86	7.07	8.29
42	5.34	6.15	7.00	7.29	7.51	8.82
43	5.65	6.53	7.44	7.76	7.99	9.37
44	5.98	6.92	7.90	8.25	8.50	9.97
45	6.33	7.35	8.40	8.77	9.03	10.60
46	6.70	7.80	8.93	9.32	9.61	11.26
47	7.09	8.27	9.49	9.91	10.21	11.98
48	7.50	8.78	10.09	10.54	10.86	12.73
49	7.94	9.32	10.72	11.20	11.55	13.54
50	8.40	9.89	11.39	11.91	12.28	14.39
51	8.89	10.49	12.11	12.66	13.06	15.30
52	9.41	11.13	12.87	13.46	13.88	16.27
53	9.96	11.81	13.68	14.31	14.76	17.30
54	10.54	12.53	14.54	15.22	15.69	18.39
55	11.15	13.30	15.45	16.18	16.69	19.55
56	11.80	14.11	16.43	17.20	17.74	20.79
57	12.49	14.97	17.46	18.28	18.87	22.10
58	14.05	16.85	19.64	20.57	21.21	24.84
59	15.81	18.96	22.10	23.13	23.85	27.91
60	17.79	21.34	24.86	26.01	26.82	31.36
61	20.02	24.02	27.97	29.26	30.16	35.24
62	22.52	27.03	31.46	32.91	33.91	39.60
63	25.34	30.42	35.40	37.01	38.13	44.49
64	28.52	34.24	39.82	41.62	42.87	49.70
65	32.08	38.53	44.80	46.81	48.20	54.11
66	36.10	43.36	50.40	52.65	54.19	59.03
67	40.62	48.80	56.71	59.22	60.94	64.40
68	44.15	53.15	61.84	64.59	66.46	69.93
69	47.98	57.90	67.44	70.44	72.49	76.00
70	52.15	63.06	73.55	76.83	79.06	82.87
71	56.68	68.69	80.21	83.79	86.23	92.21
72	61.61	74.81	87.47	91.39	94.05	103.12
73	67.40	82.02	95.99	100.30	103.21	115.44
74	73.74	89.93	105.35	110.07	113.27	129.23
75	80.68	98.59	115.61	120.80	124.30	144.45
76	88.26	108.09	126.88	132.57	136.41	158.48
77	96.57	118.51	139.24	145.50	149.70	173.86
78	105.79	129.83	152.54	159.39	164.00	188.75
79	115.89	142.22	167.10	174.61	179.65	197.38
80	126.95	155.80	183.06	191.28	196.81	205.93
81	139.08	170.68	200.54	209.55	215.60	225.59
82	152.36	186.98	219.69	229.55	236.19	247.13
83	166.90	204.83	240.67	251.47	258.74	270.73
84	182.84	224.39	263.65	275.49	283.45	296.58
85	200.30	245.82	288.82	301.79	310.51	324.90

Appendix B1

John Hancock Life Insurance Company (U.S.A.)

GPB-COV-0002

Premiums to be used only with those
that have not previously elected an inflation decrease option

Monthly Rates per $5 Increments
50% Home Health Care Benefit

BP ► Age ▼	FPO Base					
	2 Years	3 Years	5 Years	6 Years	7 Years	10 Years
18-29	0.25	0.25	0.36	0.38	0.40	0.47
30	0.25	0.25	0.36	0.38	0.40	0.47
31	0.25	0.25	0.36	0.38	0.40	0.47
32	0.25	0.25	0.36	0.38	0.40	0.47
33	0.26	0.26	0.38	0.40	0.42	0.49
34	0.28	0.28	0.40	0.42	0.44	0.52
35	0.29	0.29	0.42	0.45	0.46	0.55
36	0.31	0.31	0.45	0.47	0.49	0.58
37	0.32	0.32	0.47	0.49	0.51	0.61
38	0.34	0.34	0.49	0.52	0.54	0.64
39	0.36	0.36	0.52	0.55	0.57	0.67
40	0.37	0.37	0.55	0.58	0.60	0.71
41	0.40	0.40	0.59	0.62	0.64	0.76
42	0.43	0.43	0.63	0.67	0.69	0.82
43	0.47	0.47	0.68	0.72	0.75	0.88
44	0.50	0.50	0.74	0.78	0.80	0.95
45	0.54	0.54	0.79	0.83	0.86	1.02
46	0.58	0.58	0.85	0.90	0.93	1.10
47	0.63	0.63	0.92	0.97	1.00	1.18
48	0.67	0.67	0.99	1.04	1.08	1.27
49	0.73	0.73	1.06	1.12	1.16	1.37
50	0.78	0.78	1.15	1.21	1.25	1.47
51	0.84	0.84	1.23	1.30	1.34	1.58
52	0.91	0.91	1.33	1.40	1.45	1.70
53	0.98	0.98	1.43	1.51	1.56	1.83
54	1.05	1.05	1.54	1.62	1.68	1.97
55	1.13	1.13	1.66	1.74	1.80	2.12
56	1.22	1.22	1.78	1.88	1.94	2.28
57	1.31	1.31	1.92	2.02	2.09	2.46
58	1.48	1.48	2.16	2.27	2.35	2.76
59	1.66	1.66	2.43	2.56	2.64	3.10
60	1.87	1.87	2.74	2.88	2.97	3.48
61	2.10	2.10	3.08	3.24	3.34	3.92
62	2.37	2.37	3.47	3.64	3.76	4.40
63	2.66	2.66	3.90	4.09	4.23	4.94
64	3.00	3.00	4.39	4.60	4.75	5.52
65	3.37	3.37	4.94	5.18	5.35	6.01
66	3.80	3.80	5.56	5.83	6.01	6.56
67	4.27	4.27	6.25	6.55	6.76	7.16
68	4.68	4.68	6.86	7.19	7.41	7.82
69	5.14	5.14	7.53	7.89	8.13	8.54
70	5.63	5.63	8.26	8.66	8.92	9.37
71	6.17	6.17	9.06	9.50	9.79	10.49
72	6.77	6.77	9.95	10.42	10.74	11.79
73	7.45	7.45	10.97	11.49	11.84	13.26
74	8.20	8.20	12.09	12.66	13.05	14.90
75	9.03	9.03	13.33	13.96	14.38	16.73
76	9.94	9.94	14.69	15.38	15.85	18.43
77	10.95	10.95	16.20	16.96	17.47	20.30
78	12.02	12.02	17.78	18.62	19.18	22.09
79	13.20	13.20	19.52	20.44	21.06	23.15
80	14.49	14.49	21.44	22.45	23.12	24.21
81	15.91	15.91	23.54	24.64	25.38	26.58
82	17.47	17.47	25.85	27.06	27.87	29.19
83	19.18	19.18	28.38	29.71	30.60	32.05
84	21.06	21.06	31.16	32.62	33.60	35.19
85	23.12	23.12	34.21	35.82	36.89	38.64

Long-term Care Insurance

Approaches to Reviewing Premium Rate Increases

NAIC LTC Pricing Subgroup

October 2018

Executive Summary

Several years ago, the NAIC Long-term Care Pricing Subgroup proposed changes to the NAIC Long-term Care (LTC) Model Regulation (Model 641) aimed at strengthening the pricing of LTC insurance. These proposed changes were adopted by the NAIC in August of 2014. These changes apply to LTC insurance policies issued on or after the date that the state where the policy is issued adopts the changes.

Despite these changes, along with changes made to the pricing methodology of LTC insurance in 2002, carriers find themselves in situations where they must increase premium rates in order to cover future expected claims. Most of these increases are implemented on blocks that are no longer open to new business. Regulators often treat the review and approval of these rate increases differently.

Over the past year, the LTC Pricing Subgroup studied and discussed approaches used by various states to review LTC rate increases. These approaches were discussed on public calls consisting of regulators, industry representatives, and consumer advocates. Through that process, this document was developed to serve as a resource that states can use in their review of LTC rate increases. The goal is to create a more predictable and transparent process for reviewing LTC rate increase filings.

Scope

This document describes two methodologies for computing rate increases for LTC insurance policies. Regulators should consider applicable laws in their state when applying these methods to a particular block of policies.

Background

Prior to 2002, LTC insurance was priced using a fixed lifetime loss ratio methodology. This methodology was meant to ensure that premium rates were not too high. However, as experience evolved, the premiums set using this methodology proved to be inadequate, leading to large rate increases. In addition, this approach allowed for the portion of the premium available for expenses and profit to increase when actual claims were higher than what was expected when the product was initially priced.

In 2002, a new method of pricing LTC insurance was adopted by the NAIC. This new method, known as the rate stabilization methodology, moved away from fixed loss ratios applied to initial premiums and moved to a rating methodology designed to increase the probability

that premiums will remain unchanged for the life of the contract, even under moderately adverse experience.

Even under the revised methodology, policyholders continue to experience large rate increases. In response, the NAIC Long-term Care Pricing Subgroup proposed changes to the NAIC Long-term Care Model Regulation (Model 641) aimed at strengthening the pricing of LTC insurance. These proposed changes were adopted by the NAIC in August of 2014. These changes apply to LTC insurance policies issued after the date that the state where the policy is issued adopts the revised regulation. The new model does not address rate increases consumers are experiencing on existing business.

The LTC Pricing Subgroup turned its focus to the review of these rate increases with the goal of developing a framework to achieve greater transparency and predictability in the review and approval of requests for LTC insurance rate increases.

Approaches

As a starting point, the subgroup surveyed states on various practices surrounding their review of LTC insurance rate increases. One of the first steps in the process was to develop consistency when using certain terms, including the term "recoupment of past losses", when used in our discussions. For purposes of this document, the subgroup developed a consistent understanding of different categories of past losses.

The following charts illustrate the streams of potential losses or deficiencies stemming from two general sources – those stemming from past and future premiums being insufficient, and those stemming from past and future incurred claims being worse than expected.

At the time of a rate increase, sources of potential past premium deficiencies come from premiums that were paid by policyholders who:

- are active
- are in paid-up status (i.e., they are not on claim, but are no longer paying premium under the terms of the policy but may have future claims)
- have lapsed coverage, (i.e., they are not paying premium, are not on claim, and cannot have future claims)
- are disabled (i.e., on claim)

At the time of a rate increase, sources of future premiums come from the following two groups:

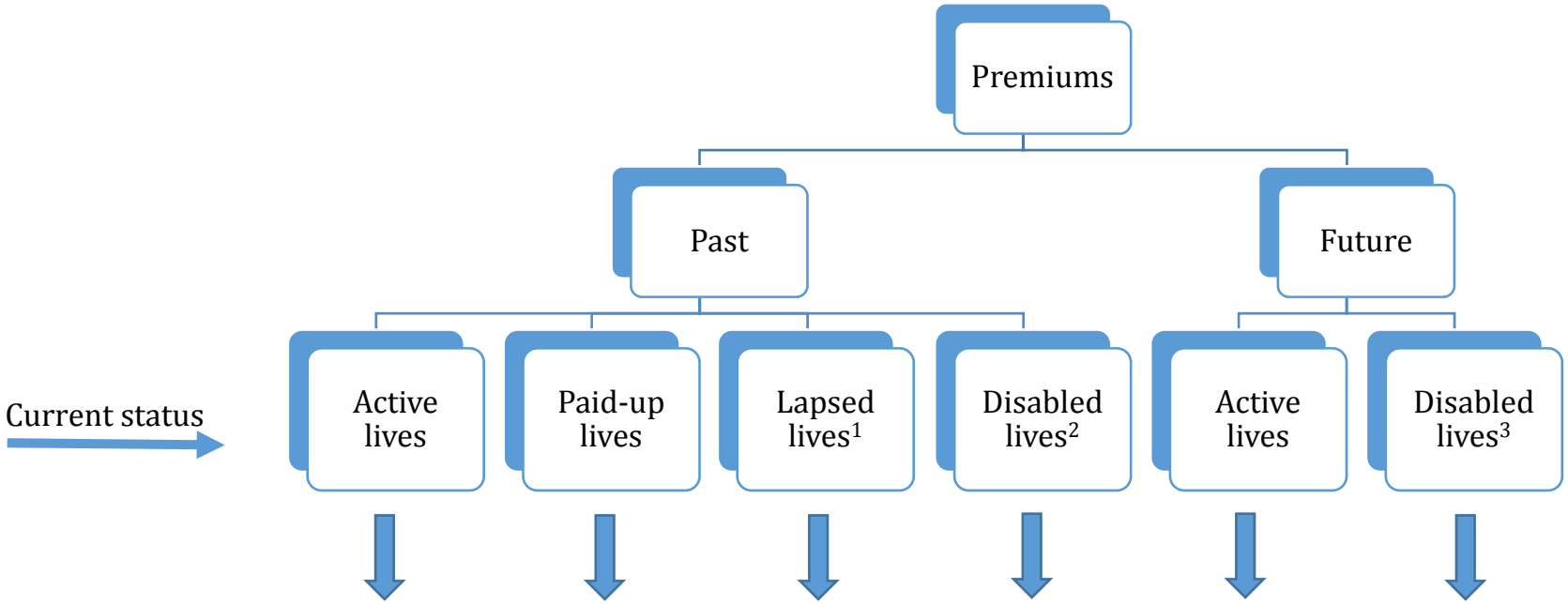
- policyholders who remain active and continue paying premiums
- policyholders who are currently on claim but recover and begin paying premiums again

At the time of a rate increase, sources of future incurred claims are:

- active premium paying policyholders who go on claim in the future

- disabled policyholders who are currently on claim, recover, and go on claim again in the future
- paid-up policyholders – this source of future claims is recognized in lifetime loss ratio calculations but not in projections of future claims for rate increases

Premium Shortfall Categories at the Time of a Rate Increase Request

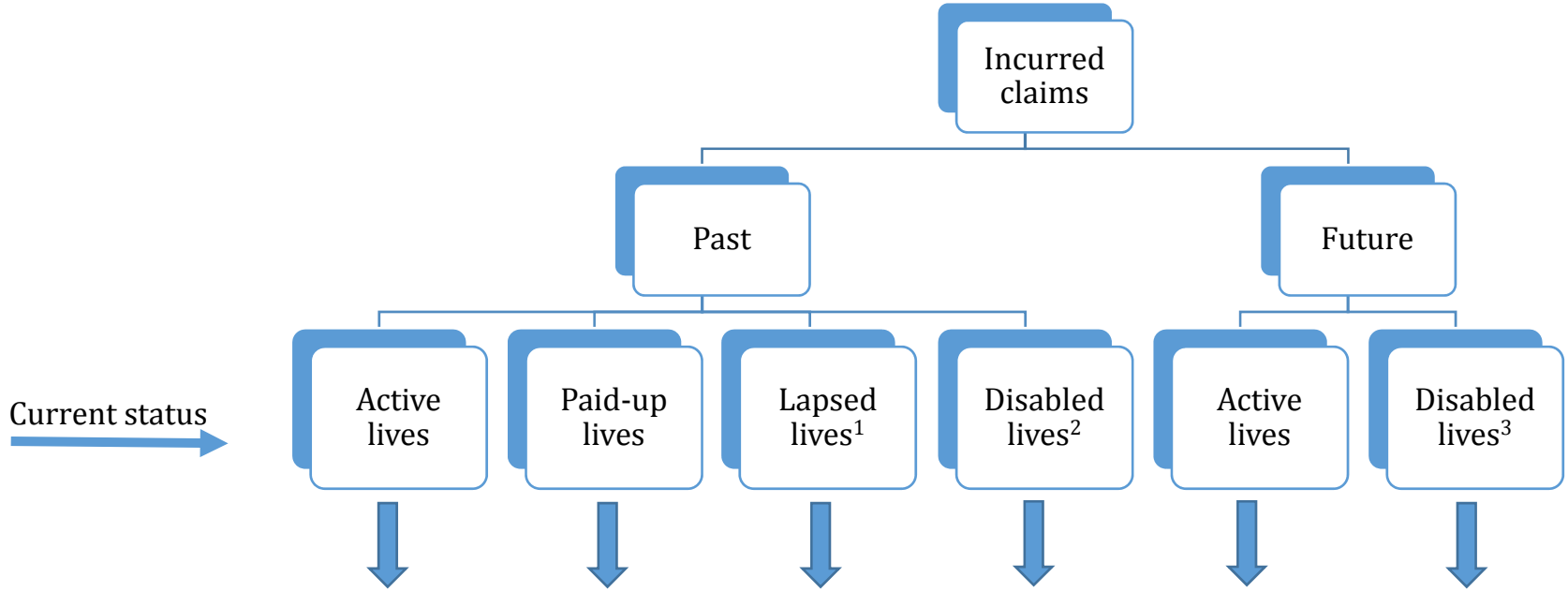


	Active lives	Paid-up lives	Lapsed lives[1]	Disabled lives[2]	Active lives	Disabled lives[3]
Lifetime loss ratio	✓	✓	✓	✓	✓	✓
Prospective present value approach	✗	✗	✗	✗	✓	✗
Blended if-knew/make up approach	✓	✓	✓	✓	✓	✓
2014 NAIC LTC Model Regulation	✓	✓	✓	✓	✓	✓

[1] Includes voluntary lapses and those who died prior to generating a claim
[2] Includes those who died while on claim and those who exhausted their benefits
[3] Current disabled lives who might recover in the future and resume paying premiums

✗ indicates that the category is not reflected in the methodology, and any deficiency needs to be funded from a source other than a rate increase. However, the deficiency could be mitigated by catch-up and transitional adjustments to the prospective PV approach. ✓ indicates a partial recoupment since the method blends if-knew, which does not allow for any recoupment, and make up, which allows for full recoupment.

Categories of Adverse Claims Experience at the Time of a Rate Increase Request



	Active lives	Paid-up lives	Lapsed lives[1]	Disabled lives[2]	Active lives	Disabled lives[3]
Lifetime loss ratio	✓	✓	✓	✓	✓	✓
Prospective present value approach	✗	✗	✗	✗	✓	✗
Blended if-knew/make up approach	✓	✓	✓	✓	✓	✓
2014 NAIC LTC Model Regulation	✗	✗	✗	✗	✓	✓

[1] Includes voluntary lapses and those who died prior to generating a claim
[2] Includes those who died while on claim and those who exhausted their benefits
[3] Current disabled lives who might recover in the future and resume paying premiums

✗ indicates that the category is not reflected in the methodology, and any deficiency needs to be funded from a source other than a rate increase. However, the deficiency could be mitigated by catch-up and transitional adjustments to the prospective PV approach. ✓ indicates a partial recoupment since the method blends if-knew, which does not allow for any recoupment, and make up, which allows for full recoupment.

As a second step in the process, the pricing subgroup identified several general methodologies that were consistently used across states. These are:

- The lifetime loss ratio approach, which allows for full recoupment of past losses and often results in the largest rate increase
- Unique state approaches, which are designed to limit the recoupment of past losses
- The amended model regulation, which, like the state approaches, limits the recoupment of past losses

The two state approaches discussed in the pricing subgroup are described below.

Prospective PV approach

This approach avoids a recoupment of past losses by considering only future projections. The following formula is used to compute an allowable rate increase for a block of LTC insurance policies:

$$\text{rate increase } \% = \frac{\Delta PV(\text{future incurred claims}) - \left(\dfrac{.58 + .85C}{1 + C}\right)\Delta PV(\text{future earned premiums})}{.85\, PV_{\text{current}}(\text{future earned premiums})}$$

where:

Δ indicates the change in present value (PV) due to the change in actuarial assumptions between the time of the last rate increase (or the original assumptions if there was no prior rate increase) and the current assumptions

C is the cumulative percent rate increase to date. For example, if the current rate, prior to the proposed rate increase, is 50 percent higher than the rate at initial pricing, then C = .5

The *current* subscript in the denominator indicates that the PV should be computed using current assumptions. The future earned premiums in the formula are based on the current premiums prior to the proposed rate increase. Regulators may wish to consider the addition of margin to the rate increase. For example, the ΔPV(future incurred claims) term in the above formula could be multiplied by 1.1 to represent a 10 percent margin.

The formula is limited to **active, premium-paying policyholders** as of the time of the filing. All present value calculations in the formula should be based on the same set of current active lives.

For pre-rate stabilized policies, one could use .6 in place of .58 and .8 in place of .85:

$$\text{rate increase } \% = \frac{\Delta PV(\text{future incurred claims}) - \left(\dfrac{.6 + .8C}{1 + C}\right)\Delta PV(\text{future earned premiums})}{.8\, PV_{\text{current}}(\text{future earned premiums})}$$

Justification for the formula

The numerator represents the amount of additional funding needed, on a prospective basis, as a result of the change in actuarial assumptions. This amount reflects the increase in the PV of incurred claims, and is partly offset by the increase in the PV of future net premiums, where net premiums are computed by multiplying gross premiums by the loss ratio.

To compute the loss ratio, if P_0 is the premium at initial pricing and P is the current premium prior to the proposed rate increase, then:

$$P = P_0(1+C)$$

so

$$P_0 = \frac{P}{1+C}$$

The portion of current premium due to prior increases is:

$$P - P_0 = P - \frac{P}{1+C} = \frac{PC}{1+C}$$

Applying a 58 percent loss ratio to the initial premium and an 85 percent loss ratio to the increase portion, the loss ratio is:

$$\frac{.58\dfrac{P}{1+C} + .85\dfrac{PC}{1+C}}{P} = \frac{.58+.85C}{1+C}$$

Since a loss ratio of 85 percent applies to the rate increase, which provides the additional funding needed, then:

$$.85\,\Delta PV_{\text{current}}(\text{future earned premiums}) =$$
$$\Delta PV(\text{future incurred claims}) - \left(\frac{.58+.85C}{1+C}\right)\Delta PV(\text{future earned premiums})$$

The percentage rate increase, computed as ΔPV / PV of future earned premiums, is found by dividing both sides of the above equation by $.85\,PV_{\text{current}}(\text{future earned premiums})$:

$$\text{rate increase}\,\% = \frac{\Delta PV(\text{future incurred claims}) - \left(\dfrac{.58+.85C}{1+C}\right)\Delta PV(\text{future earned premiums})}{.85\,PV_{\text{current}}(\text{future earned premiums})}$$

Possible Modifications to Prospective PV approach

The prospective PV formula is intended to produce a rate increase that is adequate to fund the projected increase in future claim liabilities. However, a regulator should consider modifications to the formula based on the following:

- Disapproval of a prior actuarially justified rate increase.
- A prior actuarially justified rate increase reduced by the regulator.
- Approval of a prior actuarially justified rate increase after significant delay, offset by any company delay in filing for an actuarially justified rate increase.

Note that the use of any prior "actuarially justified" rate increase requires justification and support, which may vary by company and by state. The use and amount of any prior actuarially justified rate increase must be agreed to by both the regulator and the company.

Examples of the modifications that could be made to the prospective PV formula are described below:

Catch-up Provision (For rate increase requests denied or delayed)

If part of a past rate increase request has been denied, or if there was a material delay in the prior approval, for the new rate to be consistent with the underlying methodology of the Base Formula, a company must be granted an additional rate increase amount, called the catch-up provision. The catch-up provision is designed to reflect in a new rate increase the necessary additional premiums based on the assumptions provided to the department at the time of the previous rate increase request that were not approved with the prior filing(s). It will not take into account any deviation in actual experience from assumed experience during that time period.

$$\text{Catch-up rate increase } \% = \frac{\text{AV(premiums requested}^{\text{P}}) - \text{AV(premiums approved}^{\text{P}})}{\text{PV}_{\text{current}}\text{(future earned premiums)}}$$

$$+ \frac{\text{PV(premiums requested}^{\text{F}}) - \text{PV(premiums approved}^{\text{F}})}{\text{PV}_{\text{current}}\text{(future earned premiums)}}$$

Where:

AV is the Accumulated Value at the time of the new rate increase request using the actuarial assumptions made at the time of the previous rate increase request(s).

PV is the Present Value at the time of the new rate increase request using the actuarial assumptions made at the time of the previous rate increase request(s).

Premiums Requested^P is the total past premiums that would have been collected had the entire rate increase request been granted in a timely manner based on the actuarial assumptions made at the time of the previous rate increase request(s)

Premiums Requested^F is the total future premiums that would have been collected had the entire rate increase request been granted in a timely manner based on the actuarial assumptions made at the time of the previous rate increase request(s)

Premiums Approved^P is the total past premiums that were collected based on the rate increase approved at the time of the previous rate increase request(s)

Premiums Approved^F is the total future premiums that would have been collected based on the rate increase approved at the time of the previous rate increase request(s)

For pre-rate stabilized policies, use .8 in place of .85.

<u>Transition Provision (For Pre-Rate Stability products and other products where the last rate increase requests was voluntarily reduced by the company)</u>

If the prior rate increase request was not subject to the Rate Stability actuarial certification or a past rate increase request has been voluntarily reduced from the amount per such certification, a transition period needs to be established for companies to make a single filing to provide the full amount of premium necessary to meet the actuarial certification (consistent with the Model Bulletin calculation requirements). This transition filing would establish the assumptions to be used as the "prior assumptions" for future Base Formula requests and the maximum "Prior Premium" scale for these policies based on those prior assumptions. For any new filing of a rate increase to the Prior Rate scale to be consistent with the underlying methodology of the Base Formula, a company must be granted increases from the current approved premium scale up to but not above the maximum Prior Premium scale as part of the Transition amount. In this instance, the company will not be allowed to recapture past premiums that would have been collected if the rate increase request had not been voluntarily reduced. To the extent that a company requests a Transitional increase and a state denies or reduces the amount, the amount denied would be allowed in future rate increase requests under the Catch-Up Provision.

$$\text{Transition rate increase } \% = \frac{\text{PV(premiums justified)} - \text{PV(premiums requested)}}{\text{PV}_{\text{current}}\text{(future earned premiums)}}$$

Where:

PV is the Present Value using the actuarial assumptions made at the time of the previous rate increase request(s).

Premiums Justified is the total future premiums that would have been collected had the previous rate increase request been based upon the entire amount calculated in the Base Formula and Catch-up Provisions at the time of the previous rate increase request(s)

Premiums Requested is the total future premiums that would have been collected based on the entire rate increase requested at the time of the previous rate increase request(s)

For pre-rate stabilized policies, use .8 in place of .85.

Calculation of Entire Rate Increase

Total Rate Increase = Base Formula Increase % + Catch-up Increase % + Transition Increase %

Blended If-Knew/Make-up Approach

This approach begins with the computation of if-knew and makeup rate increases, as described in the definitions below. Next, a blended average is computed between the if-knew and make-up increases, where the makeup component is weighted based on the percentage of original policyholders remaining in active, premium-paying status. Finally, a cost-sharing function is applied to determine the portion of the rate increase that is paid by policyholders, while the remainder is a cost borne by the company.

This approach requires the use of all components outlined in this section. It is not appropriate to use only one part of this approach to determine a rate increase.

Key definitions include:

- If-knew increase – increase to the premium rates such that the resulting rates, if in effect from inception of the form, would produce the greater of the initial target lifetime loss ratio or minimum loss ratio applicable to the form

- Make-up increase – increase to the premium rates such that the resulting rates, if in effect in future years, would produce the greater of the initial target lifetime loss ratio or minimum loss ratio applicable to the form

- Blended increase – weighted average of if-knew increase and makeup increase, with the makeup component weighted based on the percentage of the original policyholders remaining in active, premium-paying status

- Cost-sharing increase – blended increase reduced by the cost-sharing formula described below

- Maximum allowable rate increase – an increase that, in addition to any prior rate increase, results in a cumulative rate increase equal to the cost-sharing increase

Cost sharing

This approach requires a state to establish a cost-sharing formula to be applied the rate increase determined under this approach. The table below is an example of a formula where the rate increase is sliced into layers. The policyholder's share of the rate increase decreases with each layer.

Blended increase	Policyholder share of the increase
0-15%	100%
15-50%	90%
50-100%	75%
100-150%	65%
>150%	50%

For example, a blended increase of 70 percent would be sliced into three layers, consisting of 15 percent in the 0-15% layer, 35 percent in the 15-50% layer, and the remaining 20 percent in the 50-100% layer. The policyholder's share of a 70 percent blended increase would be 100% x 15% + 90% x 35% + 75% x 20% = 15% + 31.5% + 15% = 61.5%.

The example below illustrates the application of this method. It assumes that the minimum loss ratio applicable to the policy is 60 percent and that at the time of the rate increase filing, 40 percent of the original policyholders remain and are paying premium.

	Without current increase			Premium at if knew level			Premium at make up level			With allowable rate increase		
Experience	*Earned Premium*		*Incurred*	*Earned*	*Incurred*	*Loss*	*Earned*	*Incurred*	*Loss*	*Earned*	*Incurred*	*Loss*
Period	*Original*	*Actual*	*Claims*	*Premiums*	*Claims*	*Ratio*	*Premiums*	*Claims*	*Ratio*	*Premiums*	*Claims*	*Ratio*
Past	100	110	50	208	50	24%	110	50	45%	110	50	45%
Future	60	78	150	125	150	120%	223	150	67%	137	150	109%
Lifetime	160	188	200	333	200	60%	333	200	60%	247	200	81%
Loss ratio at the original premium level				125%								
Minimum loss ratio applicable to the form				60%		Layer	PH share					
If-knew increase				108%		15%	100%					
Make-up increase				272%		35%	90%					
Remaining policyholders percentage				40%		50%	75%					
Blended increase				174%		50%	65%					
Cost-sharing increase				128%		24%	50%					
Past rate increase				30%		174%						
Maximum allowable rate increase				76%								

There are many possible refinements of the basic approach described above, such as:

- reducing the allowable increase if the original premiums were unreasonably low (i.e. lower than a benchmark premium calculated using assumptions that are deemed appropriate for the period in which the policy was priced and issued)
- basing the if-knew and make-up increases on a measure of profitability rather than on a target or minimum loss ratio standard

- calculating present values using actual and expected investment returns rather than statutory valuation rates
- specifying how margins for adverse experience and waiver of premium benefits should be treated in the loss ratio calculation
- specifying the level of granularity of the rate increase calculation (i.e. whether the rate increase should vary by benefit features, underwriting criteria, etc.)

NAIC Model Regulation

Section 20.1(C)(2) of the Model Regulation describes a 58/85 loss ratio standard, which recognizes the lesser of actual or expected past claims. The allowable rate increase computed according to the Model Regulation's loss ratio standard applicable on the issue date of the policy, serves as a ceiling when using either of the above approaches.

Comparison of Approaches

Below are summaries of the results produced under each method for three actual rate filings received from three different carriers.

For each carrier, the earned premiums and incurred claims were multiplied by a random number to mask the carrier's actual data. Note that all yearly figures are discounted with interest:

Carrier #1

Summary of rate filing	
Type	Pre Rate Stabilized (Individual)
Rate increase history	40% in 2010; 25% in 2015
Cumulative rate prior increase	1.40 x 1.25 - 1 = 75%

	Accumulated and present values at 4.5% interest rate			
	Prior assumptions		Current assumptions	
	Earned premiums	Incurred claims	Earned premiums	Incurred claims
Past	29,881,320	30,254,745	29,312,302	30,254,745
Future	6,396,557	64,064,583	8,276,125	81,078,884
Lifetime	36,277,877	94,319,328	37,588,427	111,333,629

Summary of calculations	
Estimated % of active policyholders remaining	50%
Lifetime LR	296%
Maximum rate increase under 60/80 lifetime LR standard	1321%
Blended if-knew & makeup components:	
Makeup increase	3268%
"If knew" rate increase	498%
Blended with 50% active policyholders remaining:	1883%
With cost sharing	983%

Blended if-knew & makeup rate increase* (after backing out prior 69.6% cumulative rate increase)	**519%**
Prospective PV allowable rate increase	**238%**
* Rate increase assumes: (1) benchmark premium = original premium; and (2) 50% actives remaining.	

Carrier #2

Summary of rate filing	
Type	Rate stabilized (individual)
Rate increase history	None
Cumulative prior rate increase	0%

	Accumulated and present values at 4% interest rate			
	Prior assumptions		Current assumptions	
	Earned premiums	Incurred claims	Earned premiums	Incurred claims
Past	2,605,954	41,528	2,605,954	41,528
Future	4,537,414	3,795,819	4,382,489	5,514,785
Lifetime	7,143,367	3,837,347	6,988,442	5,556,313

Summary of calculations	
Estimated % of active policyholders remaining	71%
Lifetime LR	80%
Maximum rate increase under 58/85 lifetime LR standard	40%
Blended if-knew & makeup components:	
Makeup increase	59%
"If knew" rate increase	37%
Blended with 71% active policyholders remaining:	53%
With cost sharing	49%
Blended if-knew & makeup allowable rate increase[1, 2]	**49%**
Prospective PV allowable rate increase[2]	**49%**
[1] Rate increase assumes: (1) benchmark premium = original premium; and (2) 71% actives remaining. [2] The allowable rate increase would be limited to 40% based on the 58/85 lifetime loss ratio standard.	

Carrier #3

Summary of rate filing	
Type	Rate stabilized (individual)
Rate increase history	None
Cumulative prior rate increase	0%

	Accumulated and present values at 4.5% interest rate			
	Prior assumptions		Current assumptions	
	Earned premiums	Incurred claims*	Earned premiums	Incurred claims*
Past	1,272,279	221,055	1,272,279	221,055

Future	659,852	1,098,641	864,521	2,561,128
Lifetime	1,932,131	1,319,696	2,136,800	2,782,183

* Projected incurred claims include a 10% moderately adverse experience load.

Summary of calculations	
Estimated % of active policyholders remaining	77%
Lifetime LR	130%
Maximum rate increase under 58/85 lifetime LR standard	210%
Blended if-knew & makeup components:	
Makeup increase	308%
"If knew" rate increase	124%
Blended with 77% active policyholders remaining:	266%
With cost sharing	174%
Blended if-knew & makeup allowable rate increase*	**174%**
Prospective PV allowable rate increase	**183%**
* Rate increase assumes: (1) benchmark premium = original premium; and (2) 77% actives remaining.	

Other Considerations

Premium Rate Increase Caps

Some states, either by regulation or administrative practice, place caps on premium rate increases. In particular, New Hampshire adopted a rule that caps rate increases based on the insured's attained age. In general, caps implemented by states have no actuarial basis, but instead are arbitrarily administered.

Although it is understandable that states may favor arbitrary caps in the interest of protecting policyholders from large rate increases, one concern is a potential solvency risk if actuarially justified rate increases are postponed along with the potential for substantial reductions in benefits due to state-specific guaranty fund limits. In addition, the need for future rate increases will be greater based on the degree to which requested rate increases are capped. Many states have worked with companies to successfully address large rate increases through the use of a pre-approved series of incremental increases, allowing rates to reach the appropriate level while fully informing the policyholders of the timing and amount of the full series of increases.

Delays in Filing and Delays in Approval of Rate Increases

Similar to arbitrary rate caps, delays in implementing actuarially justified rate increases due to either a carrier failing to file a needed rate increase, or delays in the regulatory approval of a needed rate increase, can pose a potential solvency risk. Several LTC insurance carriers have commented that delays in the implementation of needed rate increases lead to significantly higher rate increases later. For example, one carrier with a large block of LTC business estimated that each one-year delay of a needed rate increase adds a 5 to 10 percentage point increase to the needed rate increase.

Lifetime Loss Ratio Issue

Some regulators believe it is inappropriate to approve a rate increase that would lead to a lower projected lifetime loss ratio than in the prior rate increase filing. Where the prior filing was consistent with actuarially certified adequate premiums this would generally be an appropriate expectation unless sufficient justification is provided for an exception. Where the prior rate filing was not consistent with actuarially certified adequate premiums (e.g. most pre-rate stability business or filings limited by rate caps) or the company noted in its filing that if experience did not improve that additional rate increase filings are likely, the projected loss ratio from such a prior filing is not an appropriate limit.

John Hancock Financial Services

Long Term Care
601 Congress Street
Boston Massachusetts 02210

(617) 572-7026
JulieKRobinson@jhancock.com

Julie K. Robinson, FSA, MAAA, CFP®
Associate Actuary, LTC In Force Management

LONG-TERM CARE INSURANCE

January 9, 2019

Bill Dismore
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A.)
2016 GLTC Inforce Rate Increase Filing – Pre-RS
SERFF ID: MULF-130882991

Dear Mr. Dismore,

This letter is in response to your objection dated November 30, 2018 regarding the above filing. Your question is included below in **bold** with our responses following.

1. **We note that the active life reserve balance relative to the anticipated future claims is high for some subsets of the block, causing the anticipated future loss ratio after deducting reserves to be less than the minimum. Has there been reserve strengthening or is there an assumption basis mismatch that would explain this result?**

   The ALR balances for the GLTC 1997 plan which we provided in our objection response on 11/20/2018 included Group LTC policies that are not included in this rate increase filing. The below revised reserve amounts should be used instead.

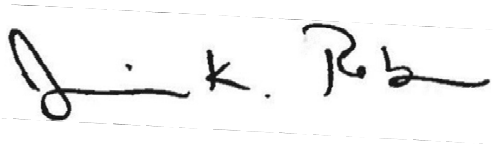
GLTC 1997 Plan		
Inflation type	**Benefit period range**	**Reserve**
With inflation	Non-lifetime	51,343,187
With inflation	Lifetime	-
Without inflation	Non-lifetime	285,631,364
Without inflation	Lifetime	-

   Note, in aggregate, our anticipated future loss ratio (including the proposed rate increase) after deducting these reserves from future incurred claims is 61%, which is above the minimum. Refer to the below table.

Inflation	Future loss ratio excluding ALR
Without inflation	62%
With inflation	59%
Total	**61%**

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,



Julie K. Robinson, FSA, MAAA, CFP®

John Hancock Life Insurance Company (U.S.A.)
(Not licensed in New York)

[William J. Ball
Vice President]

Long-Term Care Insurance
P.O. Box 111, R-02, Suite 1700
Boston, Massachusetts 02117-0111

[First Name] [Last Name] [Date]
[Address1]
[Address2]
[City], [State] [Zip]

Ref: Notice of Premium Rate Increase – Group Long-Term Care Policy No. [xxxxx]; LTC ID [xxxxxxxx]. **Decision required by [Date]. John Hancock Life Insurance Company (U.S.A.) (John Hancock)**

Dear [First Name] [Last Name],

John Hancock is committed to ensuring long-term care (LTC) insurance benefits will be there for our insureds when they need them the most. To uphold this responsibility, we continuously monitor the claims experience on our inforce LTC policies. Over the years, comprehensive studies of our LTC experience have found that more insureds than expected are submitting claims at older ages, claims are lasting longer than expected and more of our insureds are living to the ages where claim usage is higher. These factors have led to an increase in our expected future claims and, as a result, we have determined that there is a need to increase premiums so we can meet our future claims obligations.

Options to Minimize the Premium Increase

We sincerely regret having to take this action, and understand that a premium increase may not be affordable for some. At the same time, we strongly believe in the importance of LTC insurance and encourage you to retain your coverage and the valuable protection that it provides. **Therefore, we are offering you an option to keep your premium at its current level by reducing your future annual inflation rate and keeping all other benefits the same**. This is a one-time offer, so please be sure to review it carefully. Please see the enclosed "Options Worksheet" for more information.

About the Premium Increase

Your LTC insurance premium will increase from [current premium] to [new premium], monthly, on [Date].

The rate increase was reviewed by Virginia's State Corporation Commission and was found to be compliant with applicable Virginia laws and regulation addressing long-term care insurance. All premium rate filings are available for public inspection and may be accessed online through the Virginia Bureau of Insurance's webpage at www.scc.virginia.gov/BOI. We would like to assure you that no individual has been singled out for an increase, nor is the increase due to any one person's advancing age, changing health, or prior claims activity. Our decision to increase premiums is related to future anticipated claims based on all of the insureds covered under your plan design and policy series. As a reminder, premium rates are not guaranteed, and could be increased again in the future, at which time similar benefit reduction options may be available to you.

We recommend that you review all options available to you (including paying the rate increase and any available benefit reduction options) to determine which option is appropriate for your needs and consult with your family members and other advisors. You may also wish to contact the State Health Insurance Assistance Program (SHIP) located in your state if you need additional counseling on determining your response. Please go to www.shiptalk.org to find the SHIP location closest to you. In addition, you may also wish to contact your State Department/Bureau of Insurance if you need additional counseling on determining your response. Please go to http://naic.org/state web map.htm to find your State Department/Bureau of Insurance.

Included in this Package

As previously mentioned, John Hancock wants to ensure that you have a clear understanding of the need for this premium rate increase as well as any options that might be available to minimize the increase. We hope the information included in this package can answer any questions you may have about the premium rate increase and help guide you through the process.

- **Options Worksheet** (pages 3 and 4) – details your current coverage and will provide you with options you can elect in order to help mitigate the premium increase. **Please be advised that all of the options available to you may not be of equal value, so please review this information carefully.**
- **Frequently Asked Questions** (page 5) – John Hancock has compiled a list of some of our most frequently asked questions. We hope this will help with any questions you may have about the increase and the impact it will have on your LTC coverage.
- **Coverage Change Request Form** (page 6) – after reviewing your benefit and premium information, should you choose to make a change to your coverage, we've included a coverage change form you can fill out and send directly to John Hancock.

Next Steps

- If you decide to reduce your coverage as outlined in the "Options Worksheet," simply complete the "Coverage Change Request Form" and return it to John Hancock by the date referenced on the form.
- If you choose to make no changes to your coverage, no action is required, other than to pay the new increased premium.

For Further Assistance

Again, we sincerely regret having to take this action, but we hope you find that the options provided are helpful. If you have any questions, please contact one of our customer service representatives at 844-270-0407, Monday through Friday, 8:00 a.m. – 6:00 p.m., Eastern Time. The TTY number for the hearing impaired is 800-255-1808. Our dedicated team is available to help you make a decision that best meets your personal needs.

Sincerely,

[William J. Ball
Vice President, U.S. Insurance Operations]

Enclosures:
Options Worksheet
Frequently Asked Questions
Coverage Change Request Form

John Hancock Life Insurance Company (U.S.A.)
(Not licensed in New York)

[William J. Ball
Vice President]

Long-Term Care Insurance
P.O. Box 111, R-02, Suite 1700
Boston, Massachusetts 02117-0111

[First Name] [Last Name]
[Address1]
[Address2]
[City], [State] [Zip]

[Date]

Ref: Notice of Premium Rate Increase – Group Long-Term Care Policy No. [XXXXX]; LTC ID [XXXXX] **Decision required by [Date]. John Hancock Life Insurance Company (U.S.A.) (John Hancock)**

Dear [First Name] [Last Name],

John Hancock is committed to ensuring long-term care (LTC) insurance benefits will be there for our insureds when they need them the most. To uphold this responsibility, we continuously monitor the claims experience on our inforce LTC policies. Over the years, comprehensive studies of our LTC experience have found that more insureds than expected are submitting claims at older ages, claims are lasting longer than expected and more of our insureds are living to the ages where claim usage is higher. These factors have led to an increase in our expected future claims and, as a result, we have determined that there is a need to increase premiums so we can meet our future claims obligations.

Options to Minimize the Premium Increase
We sincerely regret having to take this action and understand that a premium increase may not be affordable for some. At the same time, we strongly believe in the importance of LTC insurance and the valuable protection that it provides. Therefore, we are offering you personalized options to minimize the premium increase by reducing your coverage. Please see the enclosed "Options Worksheet" for more information.

About the Premium Increase
Your LTC insurance premium will increase from [current premium] to [new premium], monthly, on [Date].

The rate increase was reviewed by Virginia's State Corporation Commission and was found to be compliant with applicable Virginia laws and regulation addressing long-term care insurance. All premium rate filings are available for public inspection and may be accessed online through the Virginia Bureau of Insurance's webpage at www.scc.virginia.gov/BOI. We would like to assure you that no individual has been singled out for an increase, nor is the increase due to any one person's advancing age, changing health, or prior claims activity. Our decision to increase premiums is related to future anticipated claims based on all of the insureds covered under your plan design and policy series. As a reminder, premium rates are not guaranteed, and could be increased again in the future, at which time similar benefit reduction options may be available to you.

We recommend that you review all options available to you (including paying the rate increase and any available benefit reduction options) to determine which option is appropriate for your needs and consult with your family members and other advisors. You may also wish to contact the State Health Insurance Assistance Program (SHIP) located in your state if you need additional counseling on determining your response. Please go to www.shiptalk.org to find the SHIP location closest to you. In addition, you may also wish to contact your State Department/Bureau of Insurance if you need additional counseling on determining your response. Please go to http://naic.org/state web map.htm to find your State Department/Bureau of Insurance.

Included in this Package

As previously mentioned, John Hancock wants to ensure that you have a clear understanding of the need for this premium rate increase as well as any options that might be available to minimize the increase. We hope the information included in this package can answer any questions you may have about the premium rate increase and help guide you through the process.

- **Options Worksheet** (pages 3 and 4) – details your current coverage and will provide you with options you can elect in order to help mitigate the premium increase. **Please be advised that all of the options available to you may not be of equal value, so please review this information carefully.**
- **Frequently Asked Questions** (page 5) – John Hancock has compiled a list of some of our most frequently asked questions. We hope this will help with any questions you may have about the increase and the impact it will have on your LTC coverage.
- **Coverage Change Request Form** (page 6) – after reviewing your benefit and premium information, should you choose to make a change to your coverage, we've included a coverage change form you can fill out and send directly to John Hancock.

Next Steps

- If you decide to reduce your coverage as outlined in the "Options Worksheet," simply complete the "Coverage Change Request Form" and return it to John Hancock by the date referenced on the form.
- If you choose to make no changes to your coverage, no action is required, other than to pay the new increased premium.

For Further Assistance

Again, we sincerely regret having to take this action, but we hope you find that the options provided are helpful. If you have any questions, please contact one of our customer service representatives at 844-270-0407, Monday through Friday, 8:00 a.m. – 6:00 p.m., Eastern Time. The TTY number for the hearing impaired is 800-255-1808. Our dedicated team is available to help you make a decision that best meets your personal needs.

Sincerely,

[William J. Ball
Vice President, U.S. Insurance Operations]

Enclosures:
Options Worksheet
Frequently Asked Questions
Coverage Change Request Form

John Hancock Life Insurance Company
Boston, Massachusetts

Attachment I

Listing of Forms Approved in Virginia as of March 4, 2002

Forms which appear only in the Policy:

Form		Page Number
GPB-COV-0002		1-COV
GPB-TOC-0002		1-TOC
GPB-PRE-0011		1-PRE
GPB-PRE-0015		2-PRE
GPB-PRE-0010		3-PRE
GPB-PRE-0012		4-PRE
GPB-SPR-0007.02		1-SPR
GPB-SPR-0005.03		2-SPR
GPB-MPR-0010		1-MPR
GPB-MPR-0010.02	(Association Group)	1-MPR
GPB-MPR-0011		2-MPR
GPB-MPR-0012		3-MPR
GPB-MPR-0013		4-MPR
GPB-BCK-0002		1-BCK

Forms which appear in both the Policy and Certificate:

Form		Page Number
GDB-TOC-0005		1-TOC
GDB-SCH-0007		1-SCH
GDB-SCH-0008		2-SCH
GDB-GNP-0062		1-GNP
GDB-GNP-0063		2-GNP
GDB-GNP-0071		3-GNP
GDB-GNP-0072		4-GNP
GDB-GNP-0073		5-GNP
GDB-GNP-0075		5.1-GNP
GDB-GNP-0067		6-GNP
GDB-GNP-0068		7-GNP
GDB-GNP-0069		8-GNP
GDB-LTC-0058.08	(CA Plan Design)	1-LTC
GDB-LTC-0058.13		1-LTC
GDB-LTC-0073.06	(CA Plan Design)	1.1-LTC
GDB-LTC-0059.02		2-LTC
GDB-LTC-0084		2.1-LTC
GDB-LTC-0039.05		3-LTC
GDB-LTC-0040.04		4-LTC
GDB-LTC-0086		5-LTC
GDB-LTC-0086.01		5-LTC
GDB-LTC-0078.01	(CA Plan Design)	5-LTC

John Hancock Life Insurance Company
Boston, Massachusetts

Attachment I (page 2)

Listing of Forms Approved in Virginia as of March 4, 2002

Forms which appear in both the Policy and Certificate:

Form		Page Number
GDB-LTC-0087		6-LTC
GDB-LTC-0087.01		6-LTC
GDB-LTC-0087.08	(CA Plan Design)	9-LTC
GDB-LTC-0088		7-LTC
GDB-LTC-0074.05	(CA Plan Design)	7-LTC
GDB-LTC-0089		8-LTC
GDB-LTC-0079	(CA Plan Design)	8-LTC
GDB-LTC-0083.01		8.1-LTC
GDB-LTC-0043.20		9-LTC
GDB-LTC-0043.21		9-LTC
GDB-LTC-0043.38	(HIPAA Medicare)	9-LTC
GDB-LTC-0051		10-LTC
GDB-LTC-0064		10-LTC
GDB-LTC-0090		11-LTC
GDB-LTC-0066.02		12-LTC
GDB-LTC-0066.04	(CA Plan Design)	18-LTC
GDB-LTC-0066.07		12-LTC
GDB-LTC-0093	(CA Plan Design)	10-LTC
GDB-LTC-0062.01	(CA Plan Design)	11-LTC
GDB-LTC-0075	(CA Plan Design)	12-LTC
GDB-LTC-0076	(CA Plan Design)	13-LTC
GDB-LTC-0077	(CA Plan Design)	14-LTC
GDB-LTC-0068		13-LTC
GDB-LTC-0071		13-LTC
GDB-LTC-0071.03		13-LTC
GDB-LTC-0069		14-LTC
GDB-LTC-0072		14-LTC
GDB-LTC-0072.06		14-LTC
GDB-LTC-0070		15-LTC
GDB-MCM-0001		1-MCM
GDB-COB-0011		1-COB
GDB-COB-0012		2-COB
GDB-COB-0013.06		3-COB
GDB-COB-0014		4-COB
GDB-MED-0007		1-MED
GDB-MED-0007.01	(Medicare Offset/No COB)	1-MED
GDB-MED-0008		2-MED

John Hancock Life Insurance Company
Boston, Massachusetts

Attachment I (page 3)

Listing of Forms Approved in Virginia as of March 4, 2002

Forms which appear in both the Policy and Certificate:

Form		Page Number
GDB-HIC-0016		1-HIC
GDB-HIC-0011		2-HIC
GDB-HIC-0011.01	(CA Plan Design)	2-HIC
GDB-HIC-0012		3-HIC
GDB-W&P-0057.02	(CA Plan Design)	1-W&P
GDB-W&P-0057.04		1-W&P
GDB-W&P-0057.08	(Association Group)	1-W&P
GDB-W&P-0072		2-W&P
GDB-W&P-0072.02	(Association Group)	2-W&P
GDB-W&P-0080		3-W&P
GDB-W&P-0073		4-W&P
GDB-W&P-0065.04		5-W&P
GDB-W&P-0065.06	(CA Plan Design)	2-W&P
GDB-W&P-0060.05		6-W&P
GDB-W&P-0074.07		7-W&P
GDB-W&P-0075		8-W&P
GDB-W&P-0082		9-W&P
GDB-W&P-0076		10-W&P
GDB-W&P-0076.03	(CA Plan Design)	3-W&P
GDB-W&P-0069.05		11-W&P
GDB-W&P-0068		12-W&P

Forms which appear only in the Certificate:

Form	Page Number
GDB-CRT-0001.36	1-CRT
GDB-CRT-0002	2-CRT

Outline of Coverage:

GCB-DIS-0042.22	TQ
GCB-DIS-0056	(or GCB-DIS-0056.01 if weekly benefit)
GCB-DIS-0057	(or GCB-DIS-0057.01 if weekly benefit)
GCB-DIS-0058	
GCB-DIS-0054	
GCB-DIS-0046	
GCB-DIS-0047.02	
GCB-DIS-0059	
GCB-DIS-0050	
GCB-DIS-0055	

John Hancock's 2002 Group LTC Portfolio Forms List

Policy Forms (all beginning P-)	
Policy Shell Face Page	P-FACE(2002-2) VA
Table of Contents	P-TOC(2002-2)
Master Schedule	P-MS(2002-2)
Premiums	P-PREM(2002-2) VA
Miscellaneous Provisions	P-MISC(2002-2) VA
Dual Forms for Policy and Certificate (All beginning D-)	
Table of Contents for Exhibit/booklet portion	D-TOC(2002-2)
Definitions	D-DEF(2002-2) VA
General Provisions	D-GEN(2002-2)
Group Long-Term Care Insurance	D-LTC(2002-2) VA
Limitations and Exclusions	D-EXCL(2002-2)
Additional Benefits: Inflation Benefits	D-LTC-INF(2002-2) VA
Additional Benefits: Nonforfeiture Benefit	D-LTC-NF(2002-2)
Additional Benefits: Contingent Nonforfeiture Benefit	D-LTC-CNF(2002-2)
Additional Benefits: Return of Premium Benefit	D-LTC-ROP(2002-2)
Additional Benefits: SharedCare Benefit	D-LTC-SHC(2002-2) VA
Claims Provisions	D-CLAIM(2002-2) VA
Coordination of Benefits	D-COB(2002-2) VA
Premiums	D-PREM(2002-2) VA
Termination of Coverage	D-TERM(2002-2)
Miscellaneous Provisions	D-MISC(2002-2) VA
Certificate forms (all beginning C-)	
Certificate Face Page	C-FACE(2002-2) VA
Schedule of Benefits	C-SOB(2002-2)

John Hancock Financial Services

Long Term Care
601 Congress Street
Boston Massachusetts 02210

(617) 572-7026
JulieKRobinson@jhancock.com

Julie K. Robinson, FSA, MAAA, CFP®
Associate Actuary, LTC In Force Management

LONG-TERM CARE INSURANCE

February 20, 2019

Bill Dismore
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A.)
2016 GLTC Inforce Rate Increase Filing – Pre-RS
SERFF ID: MULF-130882991

Dear Mr. Dismore,

This letter is in response to your objections dated February 11, 2019 and February 12, 2019 (with the single question from February 12 labeled as number 5 below) regarding the above filing. Your questions/requests are included below in **bold** with our responses following.

1. **1) For Form Number GPB-COV-0002 et al, the Company has proposed rate revisions from -5.3% to 13.5%. There are 58 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on each proposed rate table the percentage of the rate revision the Company is requesting.**

   Please see the file '*VA GLTC 1997 Appendix E.pdf*' for the requested index of proposed rate increases. We have removed the superfluous forms from the Rate/Rule tab of SERFF to avoid further confusion.

   2) Please provide an explanation as to why the Previous State Filing Number is unavailable for these forms. Provide the SERFF number(s) for the rate filing that provided the approval in VA for the current rates for these forms.

   The previous Pre-RS rate filing was submitted under SERFF Tracking Number MULF-127963400 and was approved on 2/3/2012. Note we did not file for rate increases for the GPB-COV-0002 plan as part of this filing because there were no certificate holders inforce in Virginia that had unlimited lifetime benefit periods or automatic inflation (the only two classes of policyholders where rates needed to be increased in our prior filing). The current (same as original) rates were approved for this form in VA on 11/7/1997 under file number 007 0000008380.

2. **For Form Number P-FACE(2002-2) VA et al, the Company has proposed rate revisions from 15.8% to 18.8%. There are 23 proposed rate revisions provided under the Rate/Rule Schedule for this form. Please provide an index or list on the proposed rate tables of the percentage of rate revision the Company is requesting.**

   Please see the file '*VA Care Choice Appendix E.pdf*' for the requested index of proposed rate increases. We have removed the superfluous forms from the Rate/Rule tab of SERFF to avoid further confusion.

3. **Page 11, 5th paragraph that begins with, "Some of our older group clients...." Please provide a count of the number of insureds that will be affected. Describe what information will be provided to them.**

   This paragraph does not apply to this rate increase filing, as none of our Group LTC clients in Virginia have insureds who upgraded plans.

4. **Provide an explanation as to why Company combined the P-FACE(2002-2) and the GPB-COV-0002 filings were filed together.**

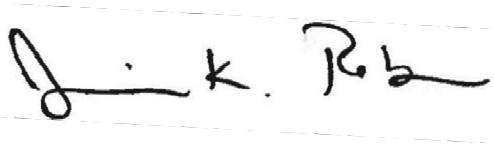
   Both plans referenced contain pre-rate stability business; therefore, we included them within the same pre-RS rate filing in SERFF. Note the proposed rate increases were calculated separately for each policy form; thus, the filings are independent except for being submitted together under the same SERFF number.

5. **We are confused by the Company's statement, "After the application of this restriction the average rate increase for the forms listed in this memo is 43.5%, ranging from 20.2% to 43.9%." This differs from your stated average rate increase range of 8.4% on page 10 under 16. Requested Rate Increase, 1. Please clarify this comment and its effect on the rate increase request.**

   We apologize for the confusion; the percentages in section 16.2 of our submitted memorandum are incorrect. Attached please find a revised memorandum in the file "*Revised GLTC 1997 actuarial memo.pdf*".

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,



Julie K. Robinson, FSA, MAAA, CFP®

Appendix E

John Hancock Life Insurance Company (U.S.A.)

GPB-COV-0002

Virginia Mix of Business & Proposed Rate Increases

FPO Base

Age	Benefit Period					
	2 Years		3 Years		5 Years	
	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count
18-29					13.5%	10
30					13.5%	7
31					13.5%	2
32					13.5%	6
33					13.5%	9
34					13.5%	7
35					13.5%	14
36					13.5%	8
37					13.5%	11
38					13.5%	15
39					13.5%	12
40					13.5%	19
41					13.5%	22
42					13.5%	23
43					13.5%	23
44					13.5%	31
45					13.5%	23
46					13.5%	27
47					13.5%	24
48					13.5%	25
49					13.5%	49
50					13.5%	37
51					13.5%	46
52					13.5%	56
53					13.5%	38
54					13.5%	45
55					13.5%	54
56					13.5%	45
57					13.5%	46
58					13.5%	60
59					13.5%	50
60					13.5%	32
61					13.5%	18
62					13.5%	19
63					13.5%	9
64					13.5%	7
65					13.5%	1
66					13.5%	4
67						
68						
69					13.5%	2
70					13.5%	2
71						
72					13.5%	1
73						
74						
75					13.5%	1
76						
77						
78						
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
89						
90						
91+						

Appendix E
John Hancock Life Insurance Company (U.S.A.)
GPB-COV-0002

Virginia Mix of Business & Proposed Rate Increases
FPO Buyup

Age	Benefit Period					
	2 Years		3 Years		5 Years	
	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count
18-29					-5.4%	4
30					-5.4%	2
31					-5.4%	2
32					-5.4%	2
33					-5.4%	4
34					-5.4%	4
35					-5.4%	2
36					-5.4%	11
37					-5.4%	6
38					-5.4%	10
39					-5.4%	10
40					-5.4%	8
41					-5.4%	8
42					-5.4%	17
43					-5.4%	12
44					-5.4%	17
45					-5.4%	35
46					-5.4%	15
47					-5.4%	26
48					-5.4%	27
49					-5.4%	30
50					-5.4%	29
51					-5.4%	32
52					-5.4%	50
53					-5.4%	38
54					-5.4%	54
55					-5.4%	55
56					-5.4%	53
57					-5.4%	38
58					-5.4%	72
59					-5.4%	69
60					-5.4%	52
61					-5.4%	57
62					-5.4%	72
63					-5.4%	53
64					-5.4%	47
65					-5.4%	40
66					-5.4%	39
67					-5.4%	28
68					-5.4%	34
69					-5.4%	23
70					-5.4%	16
71					-5.4%	17
72					-5.4%	11
73					-5.4%	11
74					-5.4%	6
75					-5.4%	6
76					-5.4%	4
77					-5.4%	3
78						
79						
80						
81						
82						
83						
84						
85						
86						
87						
88						
89						
90						
91+						

Appendix E

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Virginia Mix of Business & Proposed Rate Increases

FPO Base

Age	Benefit Period											
	2 Years		3 Years		4 Years		5 Years		6 Years		10 Years	
	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count
18-29	16.4%	1	16.7%	11			16.9%	48	16.9%	1		
30			16.7%	7			16.9%	17	16.9%	1		
31			16.7%	12			16.9%	23				
32			16.7%	12			16.9%	22				
33			16.7%	16	16.9%	1	16.9%	21			17.9%	1
34			16.7%	22			16.9%	27				
35	16.5%	2	16.7%	22			16.9%	26	16.9%	1		
36			16.8%	25	16.9%	1	16.9%	28				
37	16.5%	1	16.8%	18			16.9%	34			17.9%	1
38			16.8%	20			16.9%	56				
39			16.8%	42	16.9%	1	16.9%	48				
40	16.6%	2	16.8%	33	16.9%	1	16.9%	59			17.9%	2
41			16.8%	34			16.9%	69	16.9%	1	17.9%	1
42	16.7%	1	16.8%	37			16.9%	74				
43	16.7%	2	16.8%	37	16.9%	1	16.9%	89	16.9%	1	17.9%	2
44	16.8%	3	16.9%	33	16.9%	1	16.9%	100	16.9%	1	17.9%	1
45	16.8%	2	16.9%	59	16.9%	2	16.9%	102	16.9%	2	17.9%	1
46	16.8%	6	16.9%	55	16.9%	4	16.9%	124			17.9%	3
47	16.8%	2	16.9%	65	16.9%	3	16.9%	122	16.9%	2		
48	16.8%	2	16.9%	65	16.9%	2	16.9%	155			17.9%	3
49	16.8%	5	16.9%	62	16.9%	6	16.9%	146				
50	16.8%	4	16.9%	65	16.9%	5	16.9%	160	16.9%	1		
51	16.8%	9	16.9%	64	16.9%	2	16.9%	136			17.9%	1
52	16.9%	6	16.9%	62	16.9%	4	16.9%	133			17.9%	1
53	16.9%	3	16.9%	66	16.9%	2	16.9%	145	16.9%	1		
54	16.9%	4	16.9%	60	16.9%	7	16.9%	162	16.9%	1		
55	16.9%	2	17.0%	83	16.9%	2	16.9%	127	16.9%	1	17.8%	1
56	16.9%	4	16.9%	41	16.9%	3	16.8%	147	16.8%	1	17.8%	1
57	16.8%	8	16.9%	54	16.8%	7	16.7%	84	16.8%	2		
58	16.8%	5	16.8%	46	16.8%	6	16.7%	81	16.7%	4		
59	16.7%	5	16.8%	50	16.7%	3	16.6%	76	16.6%	1	17.6%	2
60	16.7%	4	16.7%	51	16.7%	2	16.6%	65	16.6%	1	17.5%	2
61	16.7%	3	16.7%	37	16.6%	2	16.5%	52				
62	16.6%	3	16.6%	18	16.6%	4	16.5%	29				
63			16.6%	16	16.5%	3	16.4%	24				
64	16.6%	2	16.5%	8	16.5%	1	16.4%	22			17.2%	1
65	16.5%	2	16.5%	11			16.3%	12	16.3%	1		
66			16.5%	10	16.4%	1	16.3%	8				
67	16.5%	1	16.4%	10			16.2%	7				
68			16.4%	3			16.2%	3				
69			16.4%	5			16.2%	3				
70			16.4%	1			16.1%	3				
71			16.4%	5			16.2%	1	16.2%	1		
72			16.5%	3			16.2%	1				
73												
74			16.6%	1			16.3%	1				
75					16.5%	1						
76			16.4%	1								
77			16.3%	1	16.3%	1						
78												
79												
80							15.8%	1				
81												
82												
83			15.8%	1								
84												
85												
86												
87												
88												
89												
90												
91+												

Appendix E

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Virginia Mix of Business & Proposed Rate Increases

FPO Buyup

Age	Benefit Period											
	2 Years		3 Years		4 Years		5 Years		6 Years		10 Years	
	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count
18-29							16.9%	7				
30							16.9%	1				
31			16.7%	1			16.9%	4				
32							16.9%	7				
33			16.7%	1			16.9%	2				
34			16.7%	2			16.9%	7				
35							16.9%	9				
36							16.9%	11				
37			16.8%	3			16.9%	10				
38	16.5%	2	16.8%	4			16.9%	13				
39			16.8%	2			16.9%	10				
40			16.8%	4			16.9%	21				
41	16.6%	1	16.8%	5			16.9%	22				
42			16.8%	11			16.9%	22				
43	16.7%	1	16.8%	14			16.9%	30				
44			16.9%	9			16.9%	47			17.9%	1
45			16.9%	12			16.9%	33				
46	16.8%	1	16.9%	14			16.9%	63			17.9%	2
47	16.8%	2	16.9%	16			16.9%	65			17.9%	1
48			16.9%	20	16.9%	1	16.9%	59				
49	16.8%	1	16.9%	18			16.9%	92			17.9%	3
50	16.8%	3	16.9%	26			16.9%	98			17.9%	1
51			16.9%	28			16.9%	99	16.9%	1	17.9%	1
52	16.9%	1	16.9%	25			16.9%	108			17.9%	2
53	16.9%	3	16.9%	44	16.9%	1	16.9%	122	16.9%	2	17.9%	1
54	16.9%	1	16.9%	38	16.9%	2	16.9%	103				
55	16.9%	2	17.0%	34	16.9%	2	16.9%	116			17.8%	4
56	16.9%	1	16.9%	34	16.9%	2	16.8%	146	16.8%	1	17.8%	1
57			16.9%	35	16.8%	1	16.7%	126				
58	16.8%	2	16.8%	46	16.8%	2	16.7%	113	16.7%	1	17.6%	1
59			16.8%	32			16.6%	136			17.6%	1
60	16.7%	2	16.7%	39			16.6%	116	16.6%	2		
61			16.7%	45			16.5%	94	16.5%	1		
62			16.6%	33			16.5%	104	16.5%	1	17.4%	1
63			16.6%	16	16.5%	1	16.4%	87	16.4%	2	17.3%	2
64			16.5%	31	16.5%	2	16.4%	70				
65	16.5%	2	16.5%	27	16.4%	4	16.3%	64	16.3%	1		
66			16.5%	13			16.3%	46			17.1%	1
67	16.5%	1	16.4%	16	16.3%	1	16.2%	35				
68			16.4%	9	16.3%	1	16.2%	28			17.0%	1
69			16.4%	9	16.3%	2	16.2%	15			17.0%	1
70	16.5%	1	16.4%	5	16.2%	1	16.1%	14				
71			16.4%	6	16.3%	1	16.2%	6				
72			16.5%	4	16.3%	2	16.2%	9				
73			16.5%	2			16.3%	7				
74			16.6%	1	16.5%	1	16.3%	2				
75			16.6%	1								
76							16.4%	1				
77					16.3%	1	16.3%	1				
78			16.1%	1								
79												
80					15.8%	1						
81												
82												
83							15.8%	1				
84												
85			15.8%	1								
86							15.8%	1				
87												
88												
89												
90												
91+												

Appendix E

John Hancock Life Insurance Company (U.S.A.)

P-FACE(2002-2) VA

Virginia Mix of Business & Proposed Rate Increases

ABI Option

Age	Benefit Period											
	2 Years		3 Years		4 Years		5 Years		6 Years		10 Years	
	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count	Rate Incr.	Pol. Count
18-29			18.1%	2			18.1%	4				
30							18.1%	5				
31							18.1%	3				
32							18.1%	3				
33			18.1%	2			18.1%	4				
34			18.1%	1			18.1%	3				
35			18.1%	2			18.1%	5				
36							18.1%	9				
37			18.1%	1			18.1%	11	18.1%	1		
38			18.1%	2			18.1%	9			18.8%	1
39			18.1%	3			18.1%	10				
40							18.1%	13	18.1%	1		
41							18.1%	11				
42			18.1%	3			18.1%	13			18.8%	1
43			18.1%	6			18.1%	13	18.1%	1	18.8%	1
44			18.1%	2			18.1%	21	18.1%	1		
45			18.1%	6			18.1%	25				
46			18.1%	5			18.1%	28				
47			18.1%	7			18.1%	25				
48			18.1%	8			18.1%	29	18.1%	2		
49			18.1%	6			18.1%	23			18.8%	1
50			18.1%	4			18.1%	25				
51			18.1%	8			18.1%	30				
52			18.1%	13			18.1%	33				
53			18.1%	4			18.1%	29	18.1%	2		
54			18.1%	5			18.1%	35				
55			18.1%	8			18.1%	26	18.1%	1		
56			18.1%	8			18.1%	28				
57			18.1%	4			18.0%	29				
58			18.1%	11			17.8%	22				
59			17.9%	5			17.6%	24			18.6%	1
60			17.7%	10			17.5%	32			18.4%	1
61			17.7%	5			17.4%	16				
62			17.6%	3			17.3%	17				
63			17.5%	3			17.3%	12			18.1%	1
64			17.5%	2			17.2%	11				
65			17.4%	4			17.1%	7				
66							17.0%	3				
67							16.9%	3				
68			17.2%	2								
69			17.1%	2								
70			17.0%	1			16.7%	1				
71												
72												
73												
74												
75												
76												
77												
78												
79												
80												
81												
82												
83												
84												
85												
86												
87												
88												
89												
90												
91+												

John Hancock Financial Services

Long Term Care
200 Berkeley Street
Boston Massachusetts 02116

(617) 572-4989
dplumb@jhancock.com

David Plumb, FSA, MAAA
Vice President, Long Term Care Inforce Management

LONG-TERM CARE INSURANCE

May 23, 2019

Bill Dismore
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A)
2016 Inforce Rate Increases JH – Pre-RS
SERFF ID: MULF-130882991

Dear Mr. Dismore,

This letter is to inform you that we have developed a new Shared Cost option that will allow policyholders to offset the proposed rate increases in this filing. If elected, the Shared Cost option would:

- Reduce the policyholder's current policy benefit amounts by their Shared Cost percentage. The daily/monthly benefit and the policy limit will be reduced by the Shared Cost percentage
- Apply a percentage factor to any future claim payments equal to the Shared Cost percentage. John Hancock will pay our portion (1 minus the Shared Cost percent) of any covered services, up to the new benefit amount and the policyholder will be responsible for the remainder.

The Shared Cost option will be made available for the Care Choice plan. The Shared Cost option will not be available for the GLTC 1997 plan because the 20% load removal on FPO layers complicates the calculation and the rate increase is smaller for this plan.

We would like to add this option to the current filing. New filing packages and rate sheets with the Shared Cost option are attached. The new filing package includes minor additional updates:

- Section 19 - No longer uses the word "avoid" and instead uses "offset".
- Section 20 - Now contains the details for the new Shared Cost option
- Section 22 (formerly 21) - The third sentence was updated to say "This is accomplished by first backing-out all prior **approved** rate increases from our nationwide premium data."
- Appendices C1 to C2 - Rate sheets were updated to provide rates for policyholders who elect a Shared Cost option.
- Appendix D - Added to the filing and contains the Shared Cost Percentages.
- No other changes have been made to the filing or the rate increases.

The supporting forms will be submitted under separate cover in SERFF Filing MULF-130883166.

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,

David Plumb, FSA, MAAA
Vice President, Long Term Care Inforce Management
John Hancock Life Insurance Company

John Hancock Financial Services

Long Term Care
200 Berkeley Street
Boston Massachusetts 02116

(617) 572-4989
dplumb@jhancock.com

David Plumb, FSA, MAAA
Vice President, Long Term Care Inforce Management

LONG-TERM CARE INSURANCE

July 2, 2019

Bill Dismore
Virginia Department of Insurance

Re: John Hancock Life Insurance Company (U.S.A)
2016 GLTC Inforce Rate Increases JH – Pre-RS
SERFF ID: MULF-130882991

Dear Mr. Dismore,

This letter is in response to your objection dated July 2, 2019 regarding the above filing. Your questions/concerns are included below in bold with our responses following.

Objection 1
Please provide a brief narrative to the Rate Request Summary in consumer friendly language.

A short narrative explaining the rate increase has been included in the RRS.
Please see the attached LTC Summary: "*Pre-RS VA Summary.pdf*"

Please do not hesitate to contact me if you have any questions on the above.

Sincerely,

David Plumb, FSA, MAAA
Vice President, Long Term Care Inforce Management
John Hancock Life Insurance Company