

**State:** District of Columbia **Filing Company:** John Hancock Life Insurance Company (U.S.A.)  
**TOI/Sub-TOI:** LTC03I Individual Long Term Care/LTC03I.001 Qualified  
**Product Name:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services  
**Project Name/Number:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services/

## Filing at a Glance

Company: John Hancock Life Insurance Company (U.S.A.)  
Product Name: 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services  
State: District of Columbia  
TOI: LTC03I Individual Long Term Care  
Sub-TOI: LTC03I.001 Qualified  
Filing Type: Rate  
Date Submitted: 12/16/2013  
SERFF Tr Num: JHAN-129267894  
SERFF Status: Pending Industry Response  
State Tr Num:  
State Status:  
Co Tr Num: 14LTCR RATE FILING

Implementation  
Date Requested:  
Author(s): Karren Phair, Debbie Tom, Jacqueline Lau, Joel Meggs, Marie Roche, Ina Xhunga  
Reviewer(s): Donghan Xu (primary), Alula Selassie  
Disposition Date:  
Disposition Status:  
Implementation Date:

State Filing Description:

**State:** District of Columbia **Filing Company:** John Hancock Life Insurance Company (U.S.A.)  
**TOI/Sub-TOI:** LTC031 Individual Long Term Care/LTC031.001 Qualified  
**Product Name:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services  
**Project Name/Number:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services/

## General Information

Project Name: 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services 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: Individual  
Submission Type: New Submission Individual Market Type:  
Overall Rate Impact: Filing Status Changed: 12/24/2013  
State Status Changed:  
Deemer Date: Created By: Joel Meggs  
Submitted By: Karren Phair Corresponding Filing Tracking Number:

### Filing Description:

Forms: 14LTCR – Acceleration of Death Benefit for Qualified Long-Term Care Services Rider  
14OCLTCR – Outline of Coverage

We are filing the above-referenced forms for your approval. The forms are filed for general use in accordance with the applicable laws of your jurisdiction. The forms will be laser printed, subject only to minor variations in color, paper stock, duplexing, fonts, and positioning. These are new forms and do not replace any presently-approved forms. The forms will be effective on the date of approval and will be marketed to the general public and will be used with state-approved individual life policies. No part of this filing contains any unusual or controversial items that deviate from normal Company or industry standards.

Form 14LTCR is an optional rider that can be elected at the time of application for the life insurance policy to which it will attach. The rider provides for acceleration of the death benefit of life insurance policies for qualified long-term care services. This rider will be added to the policy only at issue. This rider will be subject to medical underwriting. The issue age range for this rider is 20-80.

Please note that inflation protection, as required by Section 13 of the NAIC Long-Term Care Model Regulation, is not required as noted in §(c) which states, "The offer in Subsection A above shall not be required of life insurance policies or riders containing accelerated long-term care benefits." Suitability, under Section 24 of the Model Regulation, and Nonforfeiture, under Section 28, are also not required as stated in §(a) of these section, as the benefit is provided through an accelerated benefit rider.

Form 14OCLTCR, the Outline of Coverage, describes the rider's benefits and features. It is provided to the applicant at the time of application. The language in this form reflects the language prescribed in Section 33, Standard Format Outline of Coverage, of the NAIC Long-Term Care Model Regulation.

The Application Supplement - NB5018(01/2014), which will be filed shortly in a separate submission, will be required to be completed with the election of form 14LTCR. Subsequently-approved application forms may be used to apply for these riders in the future.

An Actuarial Memorandum, certifications, and rate schedules are enclosed; we would respectfully request that the rates, assumptions, and related pricing information provided herein be considered trade secret and treated confidentially. Advertising materials, which are still under development, will be submitted to the Department to the extent necessary under insurance laws.

**State:** District of Columbia **Filing Company:** John Hancock Life Insurance Company (U.S.A.)  
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Pursuant to Section 6 J, of the NAIC Long Term Care Model Act (Model 640), we have included a sample illustration for informational purposes. As per the above referenced section, the policy summary requirement can be incorporated into a basic illustration which includes the information required of a policy summary. A copy of the activity statement, required by Section 6 K of the NAIC Long Term Care Model Regulation, has been enclosed for informational purposes. This activity statement will be provided with the monthly acceleration payment when the policy is in benefit payment status.

The required disclosure of rating practices to consumers (Section 9 of the NAIC Long Term Care Model Regulation) is not required, as the rider is noncancellable and the rates used for determining the rider's charges will not increase.

Your attention to this submission is appreciated. Should you have any questions regarding any of the materials in this filing, please do not hesitate to contact me.

## Company and Contact

### Filing Contact Information

Joel Meggs, Senior Contract Analyst	Joel_meggs@jhancock.com
200 Bloor St E	416-852-4842 [Phone]
Toronto, ON M4W 1E5	416-926-3121 [FAX]

### Filing Company Information

John Hancock Life Insurance Company (U.S.A.)	CoCode: 65838	State of Domicile: Michigan
197 Clarendon Street	Group Code: 904	Company Type: Life Insurance
C-7-09	Group Name:	State ID Number:
Boston, MA 02117	FEIN Number: 01-0233346	
(800) 370-1355 ext. [Phone]		

## Filing Fees

Fee Required? No  
 Retaliatory? No  
 Fee Explanation:

**State:** District of Columbia  
**TOI/Sub-TOI:** LTC03I Individual Long Term Care/LTC03I.001 Qualified  
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**Project Name/Number:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services/  
**Filing Company:** John Hancock Life Insurance Company (U.S.A.)

## Correspondence Summary

### Objection Letters and Response Letters

#### Objection Letters

Status	Created By	Created On	Date Submitted
Pending Industry Response	Donghan Xu	12/24/2013	12/24/2013

#### Response Letters

Responded By	Created On	Date Submitted
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#### Filing Notes

Subject	Note Type	Created By	Created On	Date Submitted
Regarding 12/24/2013 Objection Letter	Note To Reviewer	Joel Meggs	01/05/2014	01/05/2014

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**State:** District of Columbia **Filing Company:** John Hancock Life Insurance Company (U.S.A.)  
**TOI/Sub-TOI:** LTC03I Individual Long Term Care/LTC03I.001 Qualified  
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## Objection Letter

Objection Letter Status	Pending Industry Response
Objection Letter Date	12/24/2013
Submitted Date	12/24/2013
Respond By Date	01/07/2014

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Dear Joel Meggs,

### **Introduction:**

#### **Objection 1**

- Actuarial Justification (Supporting Document)
- Cover letter (Supporting Document)
- Request for Confidentiality (Supporting Document)
- Rates , [14LTCR] (Rate)

Comments: Please translate all the retention expenses into "as % of the total gross premium". Also, since this is an individual product, you need to do an "Asset Share" Model to present ALL the mortality / morbidity / retention expenses / lapses etc into a LIFETIME projection model.

### **Conclusion:**

Sincerely,  
Donghan Xu

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## Note To Reviewer

**Created By:**

Joel Meggs on 01/05/2014 04:02 PM

**Last Edited By:**

Joel Meggs

**Submitted On:**

01/05/2014 04:02 PM

**Subject:**

Regarding 12/24/2013 Objection Letter

**Comments:**

Dear Mr. Xu,

Thank you for your recent Comment Letter wherein you request an Asset Share model for this product. I was hoping you would be so kind as to grant as an additional week in which to respond to this request. The response is due by Tuesday January 7th, but after speaking with our Pricing Actuary, it sounds as if it may take some time to put this information together.

Many thanks,

Joel Meggs  
(416) 852-4842  
joel\_meggs@jhancock.com

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## Rate/Rule Schedule

Item No.	Schedule Item Status	Document Name	Affected Form Numbers (Separated with commas)	Rate Action	Rate Action Information	Attachments
1		Rates	14LTCR	New		14LTCR Rates.pdf,

## LTCA COIs

**Form #** 14LTCR

**Rider Name** Acceleration of Death Benefit for Qualified Long-Term Care Services Rider

**Charge:** Monthly per \$1000 of Net Amount at Risk

**Rounding:** Rounded to 6 decimals

**Notes:** Rates apply both on a current and guaranteed basis.

This document contains the premium rate schedules for which the information in the actuarial i

memorandum titled "Actuarial Memorandum for Form 14LTCR" applies.

## LTCA COIs - MAP 1%

Issue Age	MXN	MPN	MZN	MSN	MPS	MSS	FXN
20	0.010000	0.011200	0.012500	0.012500	0.014600	0.016900	0.007400
21	0.010300	0.011500	0.012700	0.012700	0.015100	0.017600	0.007600
22	0.010800	0.011700	0.013400	0.013400	0.015800	0.018400	0.008000
23	0.011000	0.012000	0.013600	0.013600	0.016600	0.019500	0.008500
24	0.011200	0.012400	0.014300	0.014300	0.017400	0.020500	0.008800
25	0.011700	0.012700	0.015100	0.015100	0.018400	0.021800	0.009300
26	0.012000	0.013200	0.015600	0.015600	0.018900	0.022500	0.009500
27	0.012400	0.013800	0.016300	0.016300	0.019700	0.023200	0.010000
28	0.012700	0.014300	0.016800	0.016800	0.020500	0.024100	0.010300
29	0.013200	0.014900	0.017600	0.017600	0.021300	0.024900	0.010600
30	0.013800	0.015800	0.018400	0.018400	0.022500	0.026200	0.011200
31	0.014400	0.016600	0.019300	0.019300	0.023600	0.027500	0.011700
32	0.015100	0.017600	0.020500	0.020500	0.024900	0.028800	0.012400
33	0.016100	0.018600	0.021700	0.021700	0.026400	0.030500	0.013000
34	0.017100	0.020000	0.023200	0.023200	0.028300	0.032500	0.013800
35	0.018400	0.021800	0.025100	0.025100	0.030800	0.035300	0.014800
36	0.019100	0.022700	0.026200	0.026200	0.032400	0.036800	0.015500
37	0.019800	0.023400	0.027300	0.027300	0.034100	0.038600	0.015900
38	0.020800	0.024400	0.028600	0.028600	0.035900	0.040400	0.016600
39	0.021700	0.025600	0.030000	0.030000	0.038100	0.042600	0.017100
40	0.022800	0.027100	0.031900	0.031900	0.040800	0.045300	0.017900
41	0.024200	0.028600	0.033900	0.033900	0.043900	0.048500	0.018800
42	0.025600	0.030500	0.036400	0.036400	0.047600	0.052200	0.020000
43	0.027100	0.032400	0.038800	0.038800	0.051200	0.055600	0.021000
44	0.028800	0.034400	0.041500	0.041500	0.055300	0.059700	0.022300
45	0.030800	0.037000	0.045000	0.045000	0.060500	0.065100	0.023900
46	0.032500	0.038800	0.047100	0.047100	0.063100	0.068100	0.025400
47	0.034200	0.040500	0.049100	0.049100	0.065900	0.071500	0.026700
48	0.035900	0.042400	0.051400	0.051400	0.068600	0.074900	0.028000
49	0.037800	0.044200	0.053500	0.053500	0.071500	0.078600	0.029300
50	0.040200	0.046700	0.056800	0.056800	0.075400	0.083500	0.031200
51	0.042600	0.049300	0.060000	0.060000	0.079800	0.089100	0.032900
52	0.045500	0.052400	0.063900	0.063900	0.085100	0.095700	0.034900
53	0.048500	0.055400	0.068100	0.068100	0.090600	0.102700	0.037000
54	0.052000	0.059200	0.073000	0.073000	0.097400	0.111300	0.039500
55	0.056600	0.063700	0.079300	0.079300	0.105900	0.122200	0.042600
56	0.059700	0.067400	0.083200	0.083200	0.110500	0.127700	0.045000
57	0.063100	0.071300	0.087600	0.087600	0.115700	0.133500	0.047500
58	0.066600	0.075200	0.092100	0.092100	0.121000	0.139600	0.050000
59	0.069900	0.079100	0.096400	0.096400	0.126100	0.145500	0.052500
60	0.074400	0.084000	0.102300	0.102300	0.133000	0.153700	0.055800
61	0.078800	0.089400	0.108100	0.108100	0.140300	0.162100	0.059300
62	0.084000	0.095400	0.115000	0.115000	0.148900	0.172100	0.063400
63	0.089600	0.101800	0.122500	0.122500	0.158500	0.183100	0.067600
64	0.096200	0.109500	0.131600	0.131600	0.169900	0.196500	0.072300
65	0.104300	0.119300	0.142900	0.142900	0.184500	0.213400	0.078300
66	0.112100	0.127900	0.152300	0.152300	0.195300	0.224400	0.084300

<b>67</b>	0.119800	0.136500	0.161900	0.161900	0.206100	0.235500	0.090500
<b>68</b>	0.128200	0.146000	0.172600	0.172600	0.218500	0.248200	0.096700
<b>69</b>	0.135500	0.154400	0.181800	0.181800	0.228500	0.258100	0.102800
<b>70</b>	0.146200	0.166700	0.196000	0.196000	0.244300	0.274700	0.110300
<b>71</b>	0.156400	0.178700	0.210000	0.210000	0.259600	0.290700	0.117600
<b>72</b>	0.165200	0.189200	0.221900	0.221900	0.273600	0.305400	0.125900
<b>73</b>	0.174500	0.200400	0.234800	0.234800	0.288100	0.320800	0.134300
<b>74</b>	0.185900	0.214400	0.250600	0.250600	0.307000	0.341200	0.143600
<b>75</b>	0.204600	0.237300	0.277000	0.277000	0.336400	0.373000	0.155400
<b>76</b>	0.221400	0.255600	0.296800	0.296800	0.358300	0.395300	0.169200
<b>77</b>	0.237100	0.272300	0.314800	0.314800	0.380700	0.417900	0.184000
<b>78</b>	0.256100	0.292900	0.337500	0.337500	0.403800	0.442100	0.199400
<b>79</b>	0.271700	0.309700	0.356100	0.356100	0.429200	0.468300	0.215300
<b>80</b>	0.294800	0.335200	0.385000	0.385000	0.462400	0.504000	0.235300

<b>FPN</b>	<b>FZN</b>	<b>FSN</b>	<b>FPS</b>	<b>FSS</b>
0.008300	0.009800	0.009800	0.010500	0.013400
0.008800	0.010300	0.010300	0.010800	0.014100
0.009300	0.010800	0.010800	0.011500	0.014800
0.009500	0.011200	0.011200	0.012000	0.015500
0.010000	0.011900	0.011900	0.012700	0.016300
0.010500	0.012700	0.012700	0.013400	0.017300
0.011000	0.013200	0.013200	0.014100	0.017900
0.011400	0.013600	0.013600	0.014800	0.018600
0.011700	0.013900	0.013900	0.015500	0.019300
0.012200	0.014400	0.014400	0.016300	0.020000
0.012700	0.015100	0.015100	0.017300	0.021200
0.013400	0.015900	0.015900	0.018400	0.022200
0.014100	0.016800	0.016800	0.019700	0.023600
0.014800	0.017600	0.017600	0.021200	0.025100
0.015800	0.018800	0.018800	0.022800	0.026900
0.017100	0.020200	0.020200	0.025100	0.029100
0.017800	0.021000	0.021000	0.026200	0.030500
0.018400	0.021800	0.021800	0.027500	0.031700
0.019100	0.022700	0.022700	0.028600	0.033200
0.019800	0.023600	0.023600	0.030000	0.034700
0.020800	0.024900	0.024900	0.031700	0.036800
0.022000	0.026400	0.026400	0.033600	0.039000
0.023400	0.028000	0.028000	0.036100	0.041500
0.024900	0.030000	0.030000	0.038600	0.044400
0.026600	0.032200	0.032200	0.041500	0.047800
0.028800	0.034900	0.034900	0.045300	0.052000
0.030100	0.036600	0.036600	0.047800	0.054600
0.031700	0.038400	0.038400	0.050300	0.057300
0.033000	0.040200	0.040200	0.052700	0.060000
0.034400	0.041700	0.041700	0.054900	0.062200
0.036100	0.043700	0.043700	0.057900	0.065400
0.038100	0.046000	0.046000	0.061200	0.068700
0.040200	0.048600	0.048600	0.064700	0.072500
0.042200	0.051000	0.051000	0.068400	0.076400
0.044800	0.054200	0.054200	0.073000	0.081000
0.048000	0.058100	0.058100	0.078800	0.087300
0.050700	0.061000	0.061000	0.082200	0.091300
0.053400	0.063900	0.063900	0.085400	0.095400
0.056100	0.066900	0.066900	0.088900	0.099700
0.058800	0.070100	0.070100	0.092200	0.104200
0.062600	0.074200	0.074200	0.096900	0.110300
0.066400	0.078600	0.078600	0.101800	0.116700
0.071000	0.083700	0.083700	0.107700	0.124200
0.075700	0.089100	0.089100	0.113500	0.131900
0.081100	0.095500	0.095500	0.121000	0.141900
0.087900	0.103300	0.103300	0.129900	0.153700
0.094000	0.110100	0.110100	0.138300	0.161600

0.100200	0.116900	0.116900	0.146700	0.169400
0.106600	0.124200	0.124200	0.155700	0.177700
0.113000	0.131600	0.131600	0.165000	0.185900
0.120800	0.140900	0.140900	0.176900	0.197100
0.128400	0.150200	0.150200	0.189200	0.208700
0.137300	0.161800	0.161800	0.204600	0.223300
0.145800	0.173000	0.173000	0.219200	0.236600
0.155500	0.185900	0.185900	0.236300	0.252400
0.167500	0.202100	0.202100	0.257800	0.272200
0.182400	0.218500	0.218500	0.277300	0.291700
0.198300	0.235500	0.235500	0.298300	0.312800
0.215000	0.253600	0.253600	0.320600	0.335200
0.232400	0.272200	0.272200	0.344200	0.358300
0.254400	0.295800	0.295800	0.374700	0.388600

## LTCA COIs - MAP 2%

Issue Age	MXN	MPN	MZN	MSN	MPS	MSS	FXN
20	0.013600	0.015100	0.016800	0.016800	0.019800	0.023000	0.010000
21	0.014100	0.015500	0.017300	0.017300	0.020500	0.023900	0.010500
22	0.014600	0.015900	0.018100	0.018100	0.021500	0.025100	0.011000
23	0.014800	0.016300	0.018600	0.018600	0.022500	0.026400	0.011500
24	0.015300	0.016800	0.019300	0.019300	0.023600	0.027800	0.012000
25	0.015800	0.017300	0.020500	0.020500	0.024900	0.029500	0.012500
26	0.016100	0.017900	0.021300	0.021300	0.025600	0.030300	0.013000
27	0.016600	0.018600	0.022000	0.022000	0.026600	0.031400	0.013400
28	0.017300	0.019500	0.022800	0.022800	0.027800	0.032500	0.013900
29	0.017900	0.020200	0.023700	0.023700	0.029000	0.033700	0.014400
30	0.018800	0.021300	0.025100	0.025100	0.030500	0.035400	0.015100
31	0.019500	0.022500	0.026200	0.026200	0.031900	0.037100	0.015800
32	0.020500	0.023700	0.027600	0.027600	0.033600	0.039000	0.016800
33	0.021800	0.025200	0.029300	0.029300	0.035800	0.041300	0.017600
34	0.023200	0.027100	0.031400	0.031400	0.038400	0.044100	0.018800
35	0.024900	0.029500	0.034100	0.034100	0.041500	0.047600	0.020200
36	0.025900	0.030600	0.035600	0.035600	0.043700	0.049800	0.020800
37	0.026900	0.031700	0.037000	0.037000	0.046000	0.052200	0.021700
38	0.028000	0.033200	0.038800	0.038800	0.048800	0.054800	0.022300
39	0.029300	0.034700	0.040700	0.040700	0.051500	0.057600	0.023200
40	0.030800	0.036600	0.043100	0.043100	0.055300	0.061300	0.024400
41	0.032700	0.038800	0.046000	0.046000	0.059500	0.065600	0.025600
42	0.034700	0.041300	0.049300	0.049300	0.064400	0.070500	0.027100
43	0.036600	0.043700	0.052400	0.052400	0.069100	0.075200	0.028500
44	0.039000	0.046500	0.056100	0.056100	0.074700	0.080800	0.030300
45	0.041900	0.050300	0.061000	0.061000	0.082000	0.088100	0.032400
46	0.044100	0.052400	0.063600	0.063600	0.085400	0.092200	0.034400
47	0.046300	0.054900	0.066600	0.066600	0.089100	0.096700	0.036300
48	0.048800	0.057300	0.069600	0.069600	0.092900	0.101300	0.038100
49	0.051000	0.059700	0.072500	0.072500	0.096700	0.106200	0.039900
50	0.054400	0.063100	0.076700	0.076700	0.102200	0.113000	0.042100
51	0.057600	0.066700	0.081300	0.081300	0.108100	0.120400	0.044600
52	0.061500	0.070800	0.086600	0.086600	0.115200	0.129400	0.047300
53	0.065600	0.075000	0.092100	0.092100	0.122700	0.139100	0.050100
54	0.070500	0.080000	0.098900	0.098900	0.131700	0.150600	0.053400
55	0.076500	0.086300	0.107200	0.107200	0.143300	0.165200	0.057600
56	0.081000	0.091300	0.112800	0.112800	0.149700	0.172600	0.061000
57	0.085600	0.096400	0.118600	0.118600	0.156700	0.180800	0.064400
58	0.090200	0.101700	0.124700	0.124700	0.163800	0.188900	0.067700
59	0.094700	0.107100	0.130600	0.130600	0.170600	0.197000	0.071300
60	0.100700	0.113900	0.138600	0.138600	0.180300	0.208000	0.075700
61	0.106900	0.121200	0.146500	0.146500	0.190100	0.219400	0.080500
62	0.113900	0.129200	0.155900	0.155900	0.201800	0.232900	0.085900
63	0.121300	0.137900	0.166000	0.166000	0.214600	0.247800	0.091500
64	0.130200	0.148400	0.178200	0.178200	0.230000	0.265900	0.098200
65	0.141400	0.161600	0.193600	0.193600	0.249900	0.288800	0.106100
66	0.151900	0.173300	0.206300	0.206300	0.264400	0.303700	0.114400

<b>67</b>	0.162400	0.185000	0.219400	0.219400	0.279300	0.318700	0.122700
<b>68</b>	0.173600	0.197800	0.233700	0.233700	0.295800	0.335900	0.131100
<b>69</b>	0.183700	0.209200	0.246200	0.246200	0.309500	0.349400	0.139400
<b>70</b>	0.198000	0.225800	0.265400	0.265400	0.331000	0.372000	0.149400
<b>71</b>	0.211900	0.242100	0.284400	0.284400	0.351700	0.393500	0.159400
<b>72</b>	0.223800	0.256400	0.300500	0.300500	0.370500	0.413400	0.170900
<b>73</b>	0.236500	0.271500	0.317900	0.317900	0.390200	0.434300	0.182100
<b>74</b>	0.251900	0.290500	0.339300	0.339300	0.415800	0.462100	0.194900
<b>75</b>	0.277100	0.321500	0.374900	0.374900	0.455600	0.504600	0.210700
<b>76</b>	0.300000	0.346200	0.401800	0.401800	0.485300	0.534900	0.229500
<b>77</b>	0.321300	0.368800	0.426200	0.426200	0.515500	0.565600	0.249500
<b>78</b>	0.347100	0.396700	0.457000	0.457000	0.546800	0.598100	0.270300
<b>79</b>	0.368300	0.419600	0.482100	0.482100	0.581000	0.633700	0.292200
<b>80</b>	0.399500	0.453900	0.521200	0.521200	0.625900	0.681800	0.319200

<b>FPN</b>	<b>FZN</b>	<b>FSN</b>	<b>FPS</b>	<b>FSS</b>
0.011400	0.013400	0.013400	0.014300	0.018100
0.012000	0.013800	0.013800	0.014600	0.019100
0.012500	0.014600	0.014600	0.015500	0.020000
0.013000	0.015100	0.015100	0.016300	0.021000
0.013600	0.016100	0.016100	0.017100	0.022200
0.014300	0.017100	0.017100	0.018100	0.023200
0.014800	0.017800	0.017800	0.018900	0.024200
0.015300	0.018400	0.018400	0.020000	0.025100
0.015800	0.018900	0.018900	0.021000	0.026100
0.016400	0.019700	0.019700	0.022000	0.027100
0.017300	0.020500	0.020500	0.023400	0.028500
0.018100	0.021500	0.021500	0.024900	0.030100
0.019100	0.022700	0.022700	0.026700	0.032000
0.020200	0.023900	0.023900	0.028600	0.034100
0.021500	0.025400	0.025400	0.031000	0.036300
0.023200	0.027300	0.027300	0.034100	0.039500
0.024100	0.028500	0.028500	0.035600	0.041200
0.024900	0.029500	0.029500	0.037000	0.042900
0.025900	0.030600	0.030600	0.038800	0.044800
0.026900	0.031900	0.031900	0.040400	0.046800
0.028300	0.033700	0.033700	0.042900	0.049600
0.029800	0.035800	0.035800	0.045600	0.052700
0.031700	0.038100	0.038100	0.048800	0.056300
0.033600	0.040500	0.040500	0.052200	0.060200
0.035900	0.043600	0.043600	0.056100	0.064700
0.038800	0.047300	0.047300	0.061200	0.070500
0.041000	0.049600	0.049600	0.064600	0.074000
0.042900	0.052000	0.052000	0.068100	0.077600
0.044800	0.054400	0.054400	0.071500	0.081000
0.046500	0.056300	0.056300	0.074400	0.084200
0.049100	0.059200	0.059200	0.078400	0.088600
0.051500	0.062200	0.062200	0.082800	0.092900
0.054400	0.065700	0.065700	0.087700	0.098200
0.057300	0.069100	0.069100	0.092700	0.103300
0.060500	0.073300	0.073300	0.098700	0.109800
0.064900	0.078800	0.078800	0.106700	0.118100
0.068600	0.082700	0.082700	0.111300	0.123700
0.072300	0.086600	0.086600	0.115700	0.129200
0.075900	0.090600	0.090600	0.120300	0.135000
0.079800	0.094900	0.094900	0.124900	0.141100
0.084700	0.100500	0.100500	0.131400	0.149400
0.090000	0.106400	0.106400	0.138100	0.158000
0.096200	0.113400	0.113400	0.146000	0.168200
0.102500	0.120600	0.120600	0.153900	0.178700
0.110000	0.129400	0.129400	0.164000	0.192200
0.119100	0.140100	0.140100	0.176200	0.208200
0.127600	0.149400	0.149400	0.187400	0.218900

0.136000	0.158500	0.158500	0.198800	0.229300
0.144500	0.168400	0.168400	0.211100	0.240700
0.153200	0.178400	0.178400	0.223600	0.251900
0.163600	0.190900	0.190900	0.239700	0.267100
0.174000	0.203600	0.203600	0.256400	0.282600
0.186000	0.219200	0.219200	0.277100	0.302500
0.197600	0.234500	0.234500	0.297000	0.320500
0.210900	0.251900	0.251900	0.320100	0.341800
0.227000	0.273900	0.273900	0.349100	0.368600
0.247200	0.295900	0.295900	0.375600	0.395000
0.268600	0.319100	0.319100	0.404100	0.423500
0.291500	0.343700	0.343700	0.434500	0.453900
0.315100	0.368800	0.368800	0.466300	0.485300
0.344900	0.400800	0.400800	0.507900	0.526400

## LTCA COIs - MAP 4%

Issue Age	MXN	MPN	MZN	MSN	MPS	MSS	FXN
20	0.018100	0.020000	0.022300	0.022300	0.026200	0.030300	0.013200
21	0.018600	0.020500	0.022800	0.022800	0.027300	0.031700	0.013800
22	0.019300	0.021000	0.023900	0.023900	0.028300	0.033200	0.014400
23	0.019700	0.021500	0.024600	0.024600	0.029800	0.034900	0.015100
24	0.020200	0.022200	0.025600	0.025600	0.031200	0.036800	0.015800
25	0.020800	0.022800	0.027100	0.027100	0.032900	0.039000	0.016600
26	0.021500	0.023700	0.028000	0.028000	0.034100	0.040200	0.017300
27	0.022200	0.024700	0.029000	0.029000	0.035300	0.041500	0.017900
28	0.023000	0.025700	0.030300	0.030300	0.036800	0.043100	0.018400
29	0.023700	0.026900	0.031400	0.031400	0.038300	0.044600	0.019100
30	0.024900	0.028300	0.033000	0.033000	0.040400	0.047000	0.020000
31	0.025900	0.029800	0.034700	0.034700	0.042200	0.049100	0.021000
32	0.027300	0.031400	0.036600	0.036600	0.044600	0.051500	0.022200
33	0.028800	0.033400	0.038800	0.038800	0.047300	0.054600	0.023400
34	0.030600	0.035900	0.041700	0.041700	0.050700	0.058300	0.024900
35	0.033000	0.039000	0.045000	0.045000	0.055100	0.063100	0.026700
36	0.034400	0.040500	0.047000	0.047000	0.057900	0.065900	0.027600
37	0.035600	0.042100	0.049000	0.049000	0.061000	0.068900	0.028600
38	0.037100	0.043900	0.051200	0.051200	0.064400	0.072500	0.029600
39	0.038800	0.045800	0.053700	0.053700	0.068200	0.076200	0.030800
40	0.041000	0.048500	0.057100	0.057100	0.073100	0.081100	0.032400
41	0.043300	0.051400	0.060800	0.060800	0.078800	0.086600	0.033900
42	0.046000	0.054800	0.065200	0.065200	0.085200	0.093400	0.035800
43	0.048600	0.057900	0.069400	0.069400	0.091500	0.099500	0.037900
44	0.051500	0.061500	0.074200	0.074200	0.098900	0.106900	0.040200
45	0.055300	0.066400	0.080500	0.080500	0.108400	0.116500	0.042900
46	0.058300	0.069400	0.084200	0.084200	0.113000	0.122000	0.045500
47	0.061300	0.072600	0.087900	0.087900	0.117800	0.127900	0.048100
48	0.064400	0.075900	0.091900	0.091900	0.122800	0.134000	0.050500
49	0.067600	0.079100	0.095900	0.095900	0.127900	0.140400	0.052900
50	0.072000	0.083700	0.101500	0.101500	0.135300	0.149400	0.055900
51	0.076400	0.088400	0.107600	0.107600	0.143100	0.159400	0.059200
52	0.081600	0.093700	0.114700	0.114700	0.152500	0.171100	0.062700
53	0.086900	0.099400	0.122000	0.122000	0.162400	0.183800	0.066400
54	0.093400	0.106100	0.130700	0.130700	0.174300	0.199200	0.070800
55	0.101300	0.114200	0.141900	0.141900	0.189700	0.218500	0.076400
56	0.107100	0.120800	0.149200	0.149200	0.198300	0.228500	0.080800
57	0.113200	0.127700	0.157000	0.157000	0.207500	0.239200	0.085200
58	0.119400	0.134800	0.165000	0.165000	0.216800	0.249900	0.089800
59	0.125600	0.141800	0.172800	0.172800	0.225800	0.260500	0.094400
60	0.133500	0.150700	0.183300	0.183300	0.238700	0.275300	0.100500
61	0.141400	0.160400	0.193900	0.193900	0.251600	0.290200	0.106600
62	0.150900	0.170900	0.206300	0.206300	0.267300	0.308300	0.113900
63	0.160800	0.182600	0.219900	0.219900	0.284200	0.327900	0.121500
64	0.172600	0.196500	0.236000	0.236000	0.304800	0.351800	0.130200
65	0.187200	0.214100	0.256200	0.256200	0.330800	0.382200	0.140800
66	0.201300	0.229500	0.273200	0.273200	0.350300	0.402000	0.151700

<b>67</b>	0.215300	0.245100	0.290300	0.290300	0.369800	0.421800	0.162600
<b>68</b>	0.230200	0.261900	0.309500	0.309500	0.391800	0.444600	0.173800
<b>69</b>	0.243400	0.277000	0.326100	0.326100	0.409900	0.462400	0.184900
<b>70</b>	0.262400	0.299100	0.351300	0.351300	0.438400	0.492100	0.198100
<b>71</b>	0.280800	0.320800	0.376600	0.376600	0.465600	0.520700	0.211200
<b>72</b>	0.296600	0.339500	0.397800	0.397800	0.490700	0.547000	0.226500
<b>73</b>	0.313200	0.359500	0.420900	0.420900	0.516700	0.574800	0.241400
<b>74</b>	0.333500	0.384600	0.449200	0.449200	0.550500	0.611300	0.258300
<b>75</b>	0.367100	0.425700	0.496200	0.496200	0.602700	0.667500	0.279100
<b>76</b>	0.397500	0.458300	0.531700	0.531700	0.642000	0.707400	0.304200
<b>77</b>	0.425500	0.488200	0.563900	0.563900	0.681900	0.747800	0.330600
<b>78</b>	0.459700	0.525100	0.604500	0.604500	0.723500	0.790800	0.358400
<b>79</b>	0.487800	0.555400	0.637900	0.637900	0.768800	0.837900	0.387400
<b>80</b>	0.529300	0.600900	0.689600	0.689600	0.828300	0.901600	0.423300

<b>FPN</b>	<b>FZN</b>	<b>FSN</b>	<b>FPS</b>	<b>FSS</b>
0.015100	0.017600	0.017600	0.018900	0.023900
0.015800	0.018400	0.018400	0.019500	0.025200
0.016600	0.019300	0.019300	0.020500	0.026600
0.017300	0.020200	0.020200	0.021500	0.027800
0.018100	0.021300	0.021300	0.022700	0.029300
0.018800	0.022700	0.022700	0.023900	0.030800
0.019700	0.023400	0.023400	0.025100	0.031900
0.020300	0.024200	0.024200	0.026400	0.033200
0.021000	0.025100	0.025100	0.027600	0.034500
0.021800	0.025900	0.025900	0.029000	0.035900
0.022800	0.027100	0.027100	0.031000	0.037900
0.023900	0.028500	0.028500	0.032900	0.039900
0.025200	0.030000	0.030000	0.035300	0.042400
0.026700	0.031700	0.031700	0.037900	0.045000
0.028500	0.033600	0.033600	0.041000	0.048100
0.030600	0.036300	0.036300	0.045000	0.052200
0.031900	0.037600	0.037600	0.047100	0.054400
0.032900	0.039000	0.039000	0.049100	0.056800
0.034200	0.040700	0.040700	0.051200	0.059300
0.035600	0.042200	0.042200	0.053500	0.062000
0.037600	0.044800	0.044800	0.056800	0.065600
0.039500	0.047300	0.047300	0.060300	0.069600
0.042100	0.050300	0.050300	0.064600	0.074400
0.044600	0.053700	0.053700	0.069100	0.079500
0.047600	0.057600	0.057600	0.074400	0.085600
0.051500	0.062600	0.062600	0.081000	0.093100
0.054200	0.065700	0.065700	0.085600	0.097800
0.056800	0.068900	0.068900	0.090000	0.102700
0.059500	0.072000	0.072000	0.094500	0.107200
0.061700	0.074700	0.074700	0.098400	0.111300
0.064900	0.078600	0.078600	0.104000	0.117100
0.068200	0.082500	0.082500	0.109600	0.123000
0.072000	0.087100	0.087100	0.116200	0.129900
0.075700	0.091700	0.091700	0.122700	0.136700
0.080300	0.097000	0.097000	0.130700	0.145200
0.086100	0.104200	0.104200	0.141300	0.156200
0.090800	0.109500	0.109500	0.147300	0.163600
0.095700	0.114700	0.114700	0.153200	0.170900
0.100700	0.120100	0.120100	0.159200	0.178700
0.105700	0.125700	0.125700	0.165300	0.186700
0.112300	0.133100	0.133100	0.174000	0.197500
0.119300	0.140900	0.140900	0.182800	0.209000
0.127400	0.150200	0.150200	0.193400	0.222600
0.135800	0.159900	0.159900	0.203900	0.236500
0.145800	0.171600	0.171600	0.217300	0.254400
0.157900	0.185500	0.185500	0.233400	0.275700
0.169100	0.197800	0.197800	0.248200	0.289700

0.180100	0.210000	0.210000	0.263400	0.303700
0.191700	0.223100	0.223100	0.279700	0.318600
0.202900	0.236300	0.236300	0.296100	0.333500
0.216800	0.252900	0.252900	0.317600	0.353500
0.230400	0.269700	0.269700	0.339600	0.374000
0.246500	0.290500	0.290500	0.367100	0.400500
0.261900	0.310500	0.310500	0.393300	0.424300
0.279300	0.333700	0.333700	0.424000	0.452400
0.300700	0.362800	0.362800	0.462400	0.487800
0.327500	0.391900	0.391900	0.497500	0.522800
0.355900	0.422800	0.422800	0.535300	0.560500
0.386200	0.455300	0.455300	0.575600	0.600800
0.417700	0.488400	0.488400	0.617800	0.642300
0.457200	0.531000	0.531000	0.672800	0.696700

**State:** District of Columbia **Filing Company:** John Hancock Life Insurance Company (U.S.A.)  
**TOI/Sub-TOI:** LTC03I Individual Long Term Care/LTC03I.001 Qualified  
**Product Name:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services  
**Project Name/Number:** 14LTCR Acceleration of Death Benefit for Qualified Long-Term Care Services/

## Supporting Document Schedules

<b>Satisfied - Item:</b>	Actuarial Justification
<b>Comments:</b>	
<b>Attachment(s):</b>	14LTCR Actuarial Memorandum.pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Cover letter
<b>Comments:</b>	
<b>Attachment(s):</b>	Submission Letter.pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Request for Confidentiality
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**Actuarial Memorandum for Form 14LTCR,**  
Acceleration of Death Benefit for Qualified Long-Term Care Services Rider

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## **Scope and Purpose**

This is the actuarial memorandum for the Acceleration of Death Benefit for Qualified Long-Term Care Services Rider (Acceleration Rider), form 14LTCR.

It provides details about the benefits and premium costs and a complete description of pricing assumptions

## **Description of Policy Benefits and Premium Costs**

The Rider provides for acceleration of a portion of the Death Benefit under a life insurance policy, because of expenses associated with a Chronically Ill Insured's receipt of Qualified Long Term Care Services. Acceleration benefits made under the terms of the Acceleration Rider are paid to the owner replacing the Death Benefit and therefore, reducing and, if equal to the Death Benefit, eliminating the otherwise payable Death Benefit of the base policy.

Upon approval, this rider will be offered as an addition to existing and future approved Flexible Premium Universal, Indexed Universal, and Variable Universal Life Insurance Policies.

### ***Long Term Care Benefits***

At issue, the policy owner chooses a percentage between 0 and 100% of the initial Face Amount to be available for acceleration under this rider. The percentage chosen is the "Accelerated Benefit Percentage" (AB%). The amount of Death Benefit available for acceleration under this rider is called the "Accelerated Benefit Pool" (ABP). The ABP equals the AB% times the Initial Face Amount and it is decreased for any Face Amount Reductions or withdrawals. A policyholder may request to decrease their AB% after issue, but they can never increase it. Therefore, the ABP can decrease due to policyholder action, but will never increase.

The owner also chooses one of three available "Monthly Acceleration Percentages" (MAPs). The available percentages are presently 1%, 2%, or 4%. At the time an Accelerated Benefit claim request is approved, a 100-day elimination period is met and receipts for Qualified LTC services have been submitted, the MAP is multiplied by the ABP. This defines the maximum amount of Death Benefit that can be accelerated in a given month (the Maximum Monthly Benefit Amount or MMBA). In any month, an amount less than the MMBA may be accelerated. The amount accelerated equals the least of the amount requested, the remaining AB Balance, the MMBA for a currently approved claim, and the total amount paid for Qualified LTC Services for which receipts have been submitted. If there is an outstanding loan on the policy, the amount paid is reduced by a repayment of loan proportional to the amount accelerated as a percentage of the Face Amount. Accelerating less than the MMBA may result in a longer benefit period than if payments were made exactly for the Maximum Monthly Benefit Amount.

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At the time of each accelerated payment, the remaining ABP (aka Accelerated Benefit Balance or ABB) and Death Benefit are reduced by the amount of the Accelerated Benefit payment. The Face Amount is also reduced by a factor times the Accelerated Benefits paid. This factor equals the Face Amount before the Accelerated Benefits payment divided by the Death Benefit<sup>1</sup> before the Accelerated Benefit payment. The policy value and policy loan, if any, are also reduced by an amount that is proportional to the reduction in Face Amount.

***Rate Basis***

The Rider benefit is a prepayment of the Face Amount that would otherwise be payable at the insured's death. Rates are therefore calculated for the Rider in such a way that Rider charges fund the future interest foregone on the accelerated Insurance Benefits as well as any product cashflows, reserves, and capital requirements. Rates are set using stand-alone Long-Term Care incidence and claim termination probabilities as applied to the LTC benefit characteristics of the LTC rider and adjusted for credible LTC rider experience. Mortality and persistency are set equal to base policy Life Insurance assumptions with mortality differentiated between active lives and those in an LTC claim status. The monthly charge rates for this rider form ( 14LTCR) are guaranteed not to change for the life of the policy.

Monthly charges for the rider equal a rate multiplied by a rider's net amount at risk. The rider's net amount at risk is the remaining Accelerated Benefit Balance (ABB) minus a portion of the Policy Value. This portion equals the ratio of the remaining Acceleration Benefit Balance divided by the Death Benefit of the Base Policy. If the ABB equals the Death Benefit, then the rider's net amount at risk equals the base policy's net amount at risk.

The monthly charge rate varies by MAP%, issue age, gender, and risk classification. The rate does not vary by attained age, duration or Acceleration Benefit Percentage.

Changes to this rider's MAP%, issue age eligibility, and risk classification will be administered on a uniform, non-discriminatory basis with no effect on inforce business.

The policy design and coverage provided have been reviewed and taken into consideration in the determination of the rates.

***Marketing Method***

This rider is marketed through wire houses, our traditional agency systems, brokers, and supplemental distribution systems involving a personal contact with each applicant. The market is quite varied but we expect sales to be focused on the middle-income bracket.

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<sup>1</sup> The Death Benefit in this calculation includes any additional death benefit due to the minimum DB required by IRC Section 7702.

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***Renewability Clause***

The form is issued with a noncancellable clause. Unless the Rider is no longer in force as described in the Termination clause, the coverage will continue and the rider charge rates and benefits will not change.

***Claim Adjudication***

Rider claim adjudication is performed by John Hancock's LTC Claim Unit using contractual criteria in a manner consistent with regulations and the stand alone LTC claim adjudication.

Pricing assumptions have taken the expected claim adjudication process into consideration.

***Underwriting***

Since this rider is only issued as an addition to a Life Insurance policy, the applicant is underwritten in a manner consistent with the purchase of the Life Insurance policy as well as for the LTC benefit. The Long-Term Care Rider underwriting adds a long term care assessment including the review of the supplemental application for the LTC Rider including questions not already covered in the base policy application.

Pricing assumptions are consistent with the expected level of underwriting.

***Risk Classification***

The risk class for this rider is determined based on the underwriting assessment, paying particular attention to the Long-Term Care benefit risk. The Rider may or may not have the same underwriting class as the Base Policy.

***Issue Age Range***

The issue age range for this rider is 20-80, but we may restrict it to younger issue ages in the future.

***Premium Modalization***

Premium modalization is not applicable. This rider is attached to various flexible premium universal life insurance policies with a monthly charge structure.

***Reserves***

Appendix A contains a description of the basis for the anticipated LTC Rider contract reserves.

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## **Pricing Assumptions**

The following is a complete list of all pricing assumptions used. All assumptions are considered for review at least every three years. The actuarial assumptions are appropriate.

### ***Morbidity Assumptions***

Morbidity assumptions follow stand-alone LTC experience as applied to the benefit characteristics of the Long-Term Care Rider design, except in policy years 1-11, where adjustments to the retail LTC experience have been made to reflect credible rider claims experience. Future morbidity improvement is assumed for pricing as adapted from the Life Insurance and stand-alone LTC assumptions, but no assumption for morbidity improvement is used in valuation.

Morbidity costs vary by issue age, gender, risk class, policy duration, and claim duration.

### ***Mortality Assumptions***

The mortality assumption used for pricing is based on company retail Life Insurance experience, consistent with the mortality assumptions used to price retail Life Insurance products.

The disabled life mortality assumption is based on stand-alone LTC experience matching the characteristics of the Long Term Care Benefits provided by the rider.

Mortality costs vary by issue age, gender, risk class, policy duration, sales distribution, and claim status.

### ***Voluntary Termination (Lapse) Assumptions***

The persistency assumption is based on company retail life insurance policy experience appropriate for the policies to which this rider is attached. Disabled lives are assumed to persist while on claim. Therefore, all lapses are assumed to be come from the active life populations.

### ***Expense Assumptions***

Expense assumptions reflect the expenses that are incurred for premiums paid and for processing claims based on stand-alone LTC experience adjusted for the LTC Rider administrative process. Claim expenses include both the one-time expense to open a claim as well as the expenses incurred per claim payment and to keep a claim open.

### ***Tax Assumptions***

Tax assumptions are consistent with the company's tax reserve basis as well as premium, income, and other applicable tax rates.

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***Investment Income***

The General Account interest rate assumption is based on current and future projected economic conditions for the policies to which this rider is attached.

***Mix-of-Business Assumptions***

The expected distribution of sales is based on company experience. The expected distribution of sales varies by MAP%, issue age, gender, and risk class.

***Change-over-Time Assumptions***

Rider charges are a function of rider Net Amount at Risk. Net Amount at Risk values vary based on the amount and timing of premium payments, policy charges, and policy credits. The expected funding pattern is based on company retail Life Insurance experience. Expense assumptions are adjusted as appropriate due to the effects of inflation.



Ann Delaney, ASA, MAAA  
Actuary  
November 7, 2013

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## Appendix A: Basis for Contract Reserves

### *Acceleration of Death Benefit for QLTC Service Rider (14LTCR)*

Reserves for this rider are computed in accordance with the principles contained in the Standard Valuation Law. Reserves for this rider make good and sufficient provision for future obligations.

The reserves consist of an Active Life Reserve for lives who are not currently in an accelerated benefit claim status and a Claim Reserve (a.k.a. Disabled Life Reserve) for lives in an accelerated benefit claim status. The assumptions used for these reserves contain reasonable margins for adverse experience.

### *Active Life Reserves*

An Active Life Reserve is held on a CRVM basis for active lives that are not currently in an accelerated benefit claim status. Mortality is based on the 2001 CSO Gender and Smoker Distinct U ALB Mortality Table. Claim cost is based on internal company claim experience for stand-alone LTC as applied to the LTC Benefit characteristics of the LTC Rider and adjusted for credible LTC Rider experience on a valuation basis. The interest rate used is the maximum allowable rate for the valuation of life policies issued on the same date (currently 3.5%). The Active Life Reserve is in addition to any life insurance reserve established for the Insurance Benefit. The total reserve in the presence of this rider will never be less than the reserve for the Insurance Benefit alone. Detailed formulas for the Active Life Reserve are shown below.

### Definitions:

$x$	Issue Age
$t$	Duration in Policy Years
$i$	Interest Rate
$v$	Discount Rate = $1/(1+i)$
$q_{x+t}$	Annual Probability of death at attained age $x + t$ using 2001 CSO Table
$CC_{x+t}$	Claim Cost for Issue Age $x$ , duration $t$
$NLP_{x+t}$	NLP for Issue Age $x$ , duration $t$
$GP_x$	Gross Premium for Issue Age $x$
$r$	$NLP_x / GP_x$
$\ddot{a}_{x+t}$	Present value of a life contingent annuity with a \$1 payment beginning at time $x + t$ , paid at the beginning of the period

### Formulas:

$\text{If } s = 0, {}_sP_{x+t}^{Total} = 1, \text{ otherwise } {}_sP_{x+t}^{Total} = \prod_{j=0}^s (1 - q_{x+t+j})$
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$$NLP_x = \frac{\sum_{s=0}^{121-(x+t)} [Max(0, CC_{x+t+s}) \cdot v^s \cdot {}_sP_{x+t}^{Total}]}{\sum_{s=0}^{121-(x+t)} [v^s \cdot {}_sP_{x+t}^{Total}]}$$

$${}_tV_x^{Policy} = \sum_{s=0}^{121-(x+t)} [Max(0, CC_{x+t+s}) \cdot v^s \cdot {}_sP_{x+t}^{Total}] - r \times GP_x \times \ddot{a}_{x+t}$$

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**Claim Reserves**

A claim reserve is held on a CRVM basis for each life that enters accelerated benefit claim status. Mortality and claim cost are based on internal company claim experience for stand-alone LTC as applied to the LTC Benefit Characteristics of the LTC Rider on a valuation basis. The interest rate used in calculating the present value is the maximum allowable valuation rate (currently 3.5%) for life policies issued on the date a claim is incurred. The claim reserve is in addition to any life insurance reserve established for the Insurance Benefit. The total reserve in the presence of this rider will never be less than the reserve for the Insurance Benefit alone. Detailed formulas for the claim reserve are provided below:

**Definitions:**

$x$	Issue Age
$t$	Duration in Policy Years
$i$	Interest Rate
$v$	Discount Rate = $1 / (1+i)$
$q_{x+t}^{Claim}$	Annual Probability of death at attained age $x + t$ for life entering claim status at age $x$
$CC_{x+t}$	Claim Cost for Claim Age $x$ , duration $t$ 0 after benefit exhausted

**Formulas:**

<p>If <math>s = 0</math>, <math>{}_s P_{x+t}^{Claim} = 1</math>, otherwise <math>{}_s P_{x+t}^{Claim} = \prod_{j=0}^{s-1} (1 - q_{x+t+j}^{Claim})</math></p>
${}_t V_x^{Claim} = \sum_{s=0}^{121-(x+t)} [Max(0, CC_{x+t+s}) \cdot v^s \cdot {}_s P_{x+t}^{Claim}]$

## Appendix B: Actuarial Certifications

### **Actuarial Certifications including those prescribed by Section 10 of the LTC Model Regulation:**

1. The initial premium rate schedule is sufficient to cover anticipated costs under moderately adverse experience and the premium rate schedule is reasonably expected to be sustainable over the life of the form with no future premium increases anticipated.
2. The policy design and coverage provided have been reviewed and taken into consideration.
3. The underwriting and claims adjudication processes have been reviewed and taken into consideration.
4. A description of the basis for contract reserves that are anticipated to be held under this form is included in Appendix A.
5. The assumptions used for reserves contain reasonable margins for adverse experience.
6. The Net Valuation Premium for renewal years does not increase.
7. The difference between the gross premium and the net valuation premium for renewal years is sufficient to cover expected renewal expenses.
8. The premium rate schedule is not less than the premium rate schedule for existing similar and available policy forms, except for reasonable differences attributable to the policy design.
9. The actuarial assumptions used are appropriate.
10. The reserves make good and sufficient provision to meet future obligations.

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

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Email: joel\_meggs@jhancock.com



**PROPRIETARY AND CONFIDENTIAL**

December 16, 2013

Supervisory Insurance Examiner  
Insurance Administration  
810 First Street NE., Suite 701  
Washington, DC 20002

Attention: Mr. Jamai Fontaine

**Forms: 14LTCR – Acceleration of Death Benefit for Qualified Long-Term Care Services Rider  
14OCLTCR – Outline of Coverage**

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We are filing the above-referenced forms for your approval. The forms are filed for general use in accordance with the applicable laws of your jurisdiction. The forms will be laser printed, subject only to minor variations in color, paper stock, duplexing, fonts, and positioning. These are new forms and do not replace any presently-approved forms. The forms will be effective on the date of approval and will be marketed to the general public and will be used with state-approved individual life policies. No part of this filing contains any unusual or controversial items that deviate from normal Company or industry standards.

**Form 14LTCR** is an optional rider that can be elected at the time of application for the life insurance policy to which it will attach. The rider provides for acceleration of the death benefit of life insurance policies for qualified long-term care services. This rider will be added to the policy only at issue. This rider will be subject to medical underwriting. The issue age range for this rider is 20-80.

Please note that inflation protection, as required by Section 13 of the NAIC Long-Term Care Model Regulation, is not required as noted in §(c) which states, “The offer in Subsection A above shall not be required of life insurance policies or riders containing accelerated long-term care benefits.” Suitability, under Section 24 of the Model Regulation, and Nonforfeiture, under Section 28, are also not required as stated in §(a) of these section, as the benefit is provided through an accelerated benefit rider.

**Form 14OCLTCR**, the Outline of Coverage, describes the rider’s benefits and features. It is provided to the applicant at the time of application. The language in this form reflects the language prescribed in Section 33, Standard Format Outline of Coverage, of the NAIC Long-Term Care Model Regulation.

The Application Supplement - **NB5018(01/2014)**, which will be filed shortly in a separate submission, will be required to be completed with the election of form 14LTCR. Subsequently-approved application forms may be used to apply for these riders in the future.

An Actuarial Memorandum, certifications, and rate schedules are enclosed; we would respectfully request that the rates, assumptions, and related pricing information provided herein be considered trade secret and treated confidentially. Advertising materials, which are still under development, will be submitted to the Department to the extent necessary under insurance laws.

Pursuant to Section 6 J, of the NAIC Long Term Care Model Act (Model 640), we have included a sample illustration for informational purposes. As per the above referenced section, the policy summary requirement can be incorporated into a basic illustration which includes the information required of a policy summary. A copy of the activity statement, required by Section 6 K of the NAIC Long Term Care Model Regulation, has been enclosed for informational purposes. This activity statement will be provided with the monthly acceleration payment when the policy is in benefit payment status.

The required disclosure of rating practices to consumers (Section 9 of the NAIC Long Term Care Model Regulation) is not required, as the rider is noncancellable and the rates used for determining the rider’s charges will not increase.

Your attention to this submission is appreciated. Should you have any questions regarding any of the materials in this filing, please do not hesitate to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Joel Meggs'.

Joel Meggs  
Senior Contract Analyst

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

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**Request for Confidentiality**

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We respectfully request that the following be treated confidentially:

- The entire nine-page actuarial document titled “**Actuarial Memorandum for Form 14LTCR**” dated November 07, 2013;
- The entire fourteen-page rate document titled “**LTCA COIs, Form 14LTCR**”;

We seek to remove this particular information from public inspection because it relates directly to the Company’s pricing of this rider. The data identified addresses the Company’s pricing assumptions, loss ratio calculations, business distribution, and other strategic product development information. If this data was made available to competitor insurers, the Company would be placed at a competitive disadvantage. Specifically, other insurers could unjustly benefit from the extraordinarily time-consuming and challenging intellectual work that John Hancock actuaries have completed in developing this product without having to incur the extraordinary costs which we have already incurred.

We hope that the Department grants our request for confidentiality.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Joel Meggs'.

Joel Meggs  
Senior Contract Analyst