

SERFF Tracking Number: PRLF-128127620 State: District of Columbia  
 Filing Company: Principal Life Insurance Company State Tracking Number:  
 Company Tracking Number:  
 TOI: H07G Group Health - Specified Disease - Limited Benefit Sub-TOI: H07G.001 Critical Illness  
 Product Name: Critical Illness -Rate  
 Project Name/Number: /

**Rate Information**

Rate data applies to filing.

**Filing Method:** SERFF  
**Rate Change Type:** %  
**Overall Percentage of Last Rate Revision:** %  
**Effective Date of Last Rate Revision:**  
**Filing Method of Last Filing:**

**Company Rate Information**

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	# of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where required):	Minimum % Change (where required):
Principal Life Insurance Company	0.000%	0.000%	\$0	0	\$0	0.000%	0.000%

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## Rate/Rule Schedule

Schedule Item Status:	Document Name:	Affected Form Numbers: (Separated with commas)	Rate Action:	Rate Action Information:	Attachments
	Critical Illness-Actuarial Memorandum	GC 5700 (CI)	New		CI 120 Actuarial Memo.pdf
	Critical Illness-Rate Manual	GC 5700 (CI)	New		CI Rate Manual 20120419.pdf

**Principal Life Insurance Company**  
**Group Critical Illness, GC 5700**  
**Actuarial Memorandum**  
**March 1, 2012**

The purpose of this filing is to disclose the process used to determine group critical illness (CI) premiums only and to certify that such premiums are reasonable and appropriate. This memorandum should not be used for any other purposes.

I. Benefit and Rate Description

This policy form provides a benefit for Critical Illness, issued on a group basis. An eligible covered insured is paid a lump sum upon providing adequate proof of the critical illness, and satisfying all other requirements of the group policy.

Pricing assumptions were developed based on experience maintained by our reinsurance provider. The filed rate manual outlines the assumptions used in pricing these policies.

II. Loss Ratio Standards

The anticipated loss ratio for this policy form is expected to be no less than 60%.

III. Renewability

The policy is annually renewable subject to the conditions of the Policy Termination provisions.

IV. Actuarial Certification

To the best of my knowledge and judgment, the premiums charged are reasonable in relation to the benefits provided and are based on sound and commonly accepted actuarial principles. The rating method is based on objective and credible data and is actuarially sound and appropriate.

I, Jacob McCoy, am an actuary for Principal Life Insurance Company. I am a member of the American Academy of Actuaries and meet its qualification standards for disclosing rating methodologies.



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Jacob McCoy, FSA, MAAA  
Associate Actuary  
Principal Life Insurance Company  
Des Moines, Iowa 50392-5532  
Phone (515) 362-0102

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**Step A - Claim Cost Rates**

The claim cost rates vary by attained age, gender, smoking status, and cancer/non-cancer.

Age Range	Cancer					
	Male NS	Male Smoker	Male UniSmoke	Female NS	Female Smoker	Female UniSmoke
0-24	0.0328	0.0338	0.0330	0.0521	0.0537	0.0524
25-29	0.0457	0.0476	0.0461	0.0867	0.0894	0.0871
30-34	0.0596	0.0638	0.0605	0.1252	0.1328	0.1264
35-39	0.0814	0.0977	0.0847	0.1789	0.1968	0.1815
40-44	0.1305	0.1828	0.1410	0.2811	0.3236	0.2875
45-49	0.2308	0.3925	0.2632	0.4075	0.5301	0.4259
50-54	0.4337	0.8351	0.5140	0.5218	0.8348	0.5687
55-59	0.7465	1.6051	0.9182	0.6696	1.2722	0.7600
60-64	1.2028	2.8570	1.5336	0.8902	1.9586	1.0505
65-69	1.8077	4.6981	2.3858	1.1540	2.8835	1.4134
70+	2.3880	5.9691	3.1042	1.4388	3.4518	1.7408

Age Range	Non-Cancer					
	Male NS	Male Smoker	Male UniSmoke	Female NS	Female Smoker	Female UniSmoke
0-24	0.0202	0.0259	0.0213	0.0175	0.0207	0.0179
25-29	0.0362	0.0515	0.0392	0.0305	0.0389	0.0317
30-34	0.0713	0.1108	0.0792	0.0436	0.0583	0.0458
35-39	0.1282	0.2185	0.1463	0.0672	0.0957	0.0714
40-44	0.2116	0.3882	0.2470	0.1092	0.1637	0.1174
45-49	0.4597	0.9114	0.5500	0.2154	0.3479	0.2353
50-54	0.7727	1.5370	0.9256	0.3612	0.5801	0.3940
55-59	1.1818	2.3380	1.4130	0.5156	0.8191	0.5611
60-64	1.9831	3.9310	2.3727	0.8657	1.3745	0.9420
65-69	2.3239	4.5885	2.7768	1.2088	1.9462	1.3194
70+	3.3949	6.5049	4.0169	1.8085	2.8849	1.9699

Employer will choose whether to have smoker distinct rates or uni-smoker. The employer will also choose which benefit triggers (cancer or non-cancer) will be included in the Critical Illness policy.

Spouse claim costs will be multiplied by an additional factor, which varies by gender. Child rates will be a flat amount of 0.30 per 1000.

Spouse Gender	Factor
M	1.00
F	1.00

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### **Step B - Adjusted Claim Cost Calculation**

The adjusted claim cost is then determined by multiplying the claims cost rates by the spouse factor (if applicable). The resulting adjusted claim costs are now unique for each age band and smoking status.

$$\text{Total Claims Costs} = \sum_{\substack{\text{All EE and} \\ \text{Spouse}}} \text{Base Claim Costs (Age, Gender, Smoke, Benefit Trigger)} \times \text{Volume} / 1000$$

### **Step C - Adjustment Factors**

Step C is for adjustments that are expressed as a percentage of premiums. The factors are multiplied together to obtain a total adjustment factor. This total adjustment factor is then multiplied by the adjusted claim costs determined in Step B.

C.1 **Industry Factors**

Industry factors can be found in Appendix A.

C.1 **Geographic Factor**

Factors are based on employee zip code and can be found in Appendix B.

C.3 **Employee Participation Factor**

<b>Employee Participation %</b>	<b>Factor</b>
0-9%	1.25
10-14%	1.12
15-19%	1.05
20-24%	1.00
25-29%	0.98
30-34%	0.96
35-39%	0.94
40-44%	0.92
45-49%	0.90
50-54%	0.88
55-59%	0.87
60-64%	0.86
65-69%	0.85
70-74%	0.84
75-79%	0.82
80-84%	0.80
85-89%	0.80
90-100%	0.80

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C.4 Benefit Amount Factor

<b>Starting Benefit Amount</b>	<b>Ending Benefit Amount</b>	<b>Factor</b>
0	5,000	1.00
5,001	10,000	1.00
10,001	15,000	1.00
15,001	20,000	0.95
20,001	25,000	0.95
25,001	30,000	0.95
30,001	35,000	0.95
35,001	40,000	0.95
40,001	45,000	0.95
45,001	50,000	0.95
50,001	999,999	0.95

C.5 Rate Guarantee Factor

<b>Rate Guarantee Period</b>	<b>Factor</b>
1 Year	1.00
2 Years	1.02
3 Years	1.05

C.6 Pre-Existing Conditions Limitation Factor

<b>Pre-ex Period</b>	<b>Factor</b>
None	1.15
3/12	0.99
3/3/12	0.99
3/6/12	0.99
6/12	0.98
6/12/24	0.97
6/24	0.97
12/12	0.97
24/24	0.96
30/5	1.13

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C.7 Case Size Factor

<b>Enrolled Lives</b>	<b>Factor</b>
1-4	1.10
5-9	1.10
10-14	1.05
15-25	1.00
26-50	1.00
51-99	1.00
100-199	1.00
200-299	1.00
300-499	1.00
500+	1.00

C.8 Open Enrollment Factor

<b>Option</b>	<b>Factor</b>
Take Over - No Open Enrollment	1.00
Virgin - One Time Open Enrollment	1.00
Periodic Benefit Increase	1.05
Periodic Open Enrollment	1.30

C.9 Portability Factor

<b>Option</b>	<b>Factor</b>
No Portability	0.96
2 Year	0.98
5 Year	1.00
To Age70	1.00
Portability Elected	1.30

C.10 Accounting Type Factor

<b>Accounting Type</b>	<b>Factor</b>
List Bill	1.00
Self-Bill	1.05

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C.11 Reoccurrence Period Factor

Period in Months	Reoccurrence	Subsequent Occurrence
3	1.02	1.04
6	1.01	1.01
12	1.00	1.00
18	0.99	0.99
24	0.98	0.98

C.12 Maximum Lifetime Benefit Factor

Percent of Face	Factor
100%	0.95
150%	0.98
200%	1.00
250%	1.02
300%	1.05

C.13 Multiple Product Discount (MPD) Factor

Factor applies when three or more qualifying products are elected. Groups must have <500 lives and have employer contributions of 50-100%. If these conditions are met, the factor is 1.00.

C.14 Experience Adjustment Factor

Varies by case size, life years of experience and prior claims experience for the group.

C.15 HSA Compatible Plan

HSA Compatible	Factor
Yes	0.95
No	1.00



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**Step D – Flat Benefits**

Wellness Cost = Annual Max \* Utilization Rate / 12

Annual Max	Utilization Rate
25	40%
50	40%
75	40%
100	40%

**Step E – Pre-Expense Premium**

Pre-expense premium is equal to the adjusted claims cost, multiplied by the total adjustment factor, plus the flat benefits.

**Step F - Expense Calculation**

The overall percent of premium expense is calculated as the sum of items F.1 through F.5.

F.1 Premium Tax

This is a percent of premium expense. The cost is 2.0%

F.2 Non-Commission Percent of Premium

These percent of premium factors can be found in Appendix C.

F.3 Commission Percent of Premium

If flat commissions are selected, the percent of premium is simply the flat commission level selected.

If heaped commissions are selected the percent of premium is the recurring commissions plus the excess of the first year commission over the recurring commission divided by the assumed average retention period.

Number of Lives	Average Retention Period
1-4	5.00
5-9	5.00
10-14	5.00
15-25	5.00
26-50	5.00
51-99	4.50
100-199	4.00
200-299	3.50
300-499	3.00
500+	3.00

F.4 Rated Service Fee

This is a percent of premium expense associated with customized services elected by the case.

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F.5 Additional Percent of Premium Expense  
The cost for profit, risk retention, and FIT is 5.0%  
Reinsurance cost is 7.0%

F.6 Case Service Expenses  
Reflects direct costs based on services elected by the case. Examples would include customized reporting, travel costs, and any other extraordinary costs necessary to service the case.

F.7 Additional Billing Unit  
This fee is 10 per month for each billing unit in excess of one.

F.8 Percent of Premium Expense  
This is the sum of items F.1 through F.5.

**Step H - Calculate Final Premium**

Final Monthly Premium = (Pre-Expense Monthly Premium + F.6 + F.7) / (1 -FG.8)

**Factor Updates**

The above-described factors may be updated periodically when new studies are completed. In general, the factors will not move upward or downward more than 10%. If any of the above factors change more than 10%, we will re-file these factors. If all factors combined change more than 25%, then all rates and factors will be re-filed.

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Appendix A – Industry Factors

SIC	Industry Factor
111	1.05
112	1.05
115	1.05
116	1.05
119	1.05
131	1.05
132	1.05
133	1.05
134	1.05
139	1.05
161	1.05
171	1.05
172	1.05
173	1.05
174	1.05
175	1.05
179	1.05
181	1.05
182	1.05
191	1.05
211	1.05
212	1.05
213	1.05
214	1.05
219	1.05
241	1.05
251	1.05
252	1.05
253	1.05
254	1.05
259	1.05
271	1.05
272	1.05
273	1.05
279	1.05
291	1.05
711	1.05
721	1.05
722	1.05
723	1.05

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SIC	Industry Factor
724	1.05
741	1.05
742	1.05
751	1.05
752	1.05
761	1.05
762	1.05
781	1.05
782	1.05
783	1.05
811	1.25
831	1.25
851	1.25
912	1.25
913	1.25
919	1.25
921	1.25
971	1.25
1011	9.99
1021	9.99
1031	9.99
1041	9.99
1044	9.99
1061	9.99
1081	9.99
1094	9.99
1099	9.99
1221	9.99
1222	9.99
1231	9.99
1241	9.99
1311	1.25
1321	1.25
1381	1.25
1382	1.25
1389	1.25
1411	1.25
1422	1.25
1423	1.25
1429	1.25
1442	1.25

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SIC	Industry Factor
1446	1.25
1455	1.25
1459	1.25
1474	1.25
1475	1.25
1479	1.25
1481	1.25
1499	1.25
1521	1.10
1522	1.10
1531	1.10
1541	1.10
1542	1.10
1611	1.20
1622	1.20
1623	1.20
1629	1.20
1711	1.20
1721	1.20
1731	1.20
1741	1.20
1742	1.20
1743	1.20
1751	1.20
1752	1.20
1761	1.20
1771	1.20
1781	1.20
1791	1.20
1793	1.20
1794	1.20
1795	1.20
1796	1.20
1799	1.20
2011	1.25
2013	1.25
2015	1.25
2021	1.05
2022	1.05
2023	1.05
2024	1.05

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SIC	Industry Factor
2026	1.05
2032	1.05
2033	1.05
2034	1.05
2035	1.05
2037	1.05
2038	1.05
2041	1.05
2043	1.05
2044	1.05
2045	1.05
2046	1.05
2047	1.05
2048	1.05
2051	1.05
2052	1.05
2053	1.05
2061	1.05
2062	1.05
2063	1.05
2064	1.05
2066	1.05
2067	1.05
2068	1.05
2074	1.05
2075	1.05
2076	1.05
2077	1.05
2079	1.05
2082	1.05
2083	1.05
2084	1.05
2085	1.05
2086	1.05
2087	1.05
2091	1.05
2092	1.05
2095	1.05
2096	1.05
2097	1.05
2098	1.05

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SIC	Industry Factor
2099	1.05
2111	1.25
2121	1.25
2131	1.25
2141	1.25
2211	1.05
2221	1.05
2231	1.05
2241	1.05
2251	1.05
2252	1.05
2253	1.05
2254	1.05
2257	1.05
2258	1.05
2259	1.05
2261	1.05
2262	1.05
2269	1.05
2273	1.05
2281	1.05
2282	1.05
2284	1.05
2295	1.05
2296	1.05
2297	1.05
2298	1.05
2299	1.05
2311	1.00
2321	1.00
2322	1.00
2323	1.00
2325	1.00
2326	1.00
2329	1.00
2331	1.00
2335	1.00
2337	1.00
2339	1.00
2341	1.00
2342	1.00

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SIC	Industry Factor
2353	1.00
2361	1.00
2369	1.00
2371	1.00
2381	1.00
2384	1.00
2385	1.00
2386	1.00
2387	1.00
2389	1.00
2391	1.00
2392	1.00
2393	1.00
2394	1.00
2395	1.00
2396	1.00
2397	1.00
2399	1.00
2411	1.25
2421	1.25
2426	1.25
2429	1.25
2431	1.15
2434	1.15
2435	1.15
2436	1.15
2439	1.15
2441	1.15
2448	1.15
2449	1.15
2451	1.15
2452	1.15
2491	1.15
2493	1.15
2499	1.15
2511	1.05
2512	1.05
2514	1.05
2515	1.05
2517	1.05
2519	1.05



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SIC	Industry Factor
2521	1.05
2522	1.05
2531	1.05
2541	1.05
2542	1.05
2591	1.05
2599	1.05
2611	1.05
2621	1.05
2631	1.05
2652	1.05
2653	1.05
2655	1.05
2656	1.05
2657	1.05
2671	1.05
2672	1.05
2673	1.05
2674	1.05
2675	1.05
2676	1.05
2677	1.05
2678	1.05
2679	1.05
2711	1.00
2721	1.00
2731	1.00
2732	1.00
2741	1.00
2752	1.00
2754	1.00
2759	1.00
2761	1.00
2771	1.00
2782	1.00
2789	1.00
2791	1.00
2796	1.00
2812	1.05
2813	1.05
2816	1.05

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SIC	Industry Factor
2819	1.05
2821	1.05
2822	1.05
2823	1.05
2824	1.05
2833	0.95
2834	0.95
2835	0.95
2836	0.95
2841	1.05
2842	1.05
2843	1.05
2844	1.05
2851	1.05
2861	1.05
2865	1.05
2869	1.05
2873	1.05
2874	1.05
2875	1.05
2879	1.05
2891	1.05
2892	1.05
2893	1.05
2895	1.05
2899	1.05
2911	1.25
2951	1.25
2952	1.25
2992	1.25
2999	1.25
3011	1.10
3021	1.10
3052	1.10
3053	1.10
3061	1.10
3069	1.10
3081	1.10
3082	1.10
3083	1.10
3084	1.10

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SIC	Industry Factor
3085	1.10
3086	1.10
3087	1.10
3088	1.10
3089	1.10
3111	1.10
3131	1.10
3142	1.10
3143	1.10
3144	1.10
3149	1.10
3151	1.10
3161	1.10
3171	1.10
3172	1.10
3199	1.10
3211	1.25
3221	1.25
3229	1.25
3231	1.25
3241	1.25
3251	1.25
3253	1.25
3255	1.25
3259	1.25
3261	1.25
3262	1.25
3263	1.25
3264	1.25
3269	1.25
3271	1.25
3272	1.25
3273	1.25
3274	1.25
3275	1.25
3281	1.25
3291	1.25
3292	9.99
3295	1.25
3296	1.25
3297	1.25

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SIC	Industry Factor
3299	1.25
3312	1.25
3313	1.25
3315	1.25
3316	1.25
3317	1.25
3321	1.25
3322	1.25
3324	1.25
3325	1.25
3331	1.25
3334	1.25
3339	1.25
3341	1.25
3351	1.25
3353	1.25
3354	1.25
3355	1.25
3356	1.25
3357	1.25
3363	1.25
3364	1.25
3365	1.25
3366	1.25
3369	1.25
3398	1.25
3399	1.25
3411	1.25
3412	1.25
3421	1.25
3423	1.25
3425	1.25
3429	1.25
3431	1.25
3432	1.25
3433	1.25
3441	1.25
3442	1.25
3443	1.25
3444	1.25
3446	1.25

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<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
3448	1.25
3449	1.25
3451	1.25
3452	1.25
3462	1.25
3463	1.25
3465	1.25
3466	1.25
3469	1.25
3471	1.25
3479	1.25
3482	1.25
3483	1.25
3484	1.25
3489	1.25
3491	1.25
3492	1.25
3493	1.25
3494	1.25
3495	1.25
3496	1.25
3497	1.25
3498	1.25
3499	1.25
3511	1.00
3519	1.00
3523	1.00
3524	1.00
3531	1.00
3532	1.00
3533	1.00
3534	1.00
3535	1.00
3536	1.00
3537	1.00
3541	1.00
3542	1.00
3543	1.00
3544	1.00
3545	1.00
3546	1.00

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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
3547	1.00
3548	1.00
3549	1.00
3552	1.00
3553	1.00
3554	1.00
3555	1.00
3556	1.00
3559	1.00
3561	1.00
3562	1.00
3563	1.00
3564	1.00
3565	1.00
3566	1.00
3567	1.00
3568	1.00
3569	1.00
3571	1.00
3572	1.00
3575	1.00
3577	1.00
3578	1.00
3579	1.00
3581	1.00
3582	1.00
3585	1.00
3586	1.00
3589	1.00
3592	1.00
3593	1.00
3594	1.00
3596	1.00
3599	1.00
3612	1.00
3613	1.00
3621	1.00
3624	1.00
3625	1.00
3629	1.00
3631	1.00

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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
3632	1.00
3633	1.00
3634	1.00
3635	1.00
3639	1.00
3641	1.00
3643	1.00
3644	1.00
3645	1.00
3646	1.00
3647	1.00
3648	1.00
3651	1.00
3652	1.00
3661	1.00
3663	1.00
3669	1.00
3671	1.00
3672	1.00
3674	1.00
3675	1.00
3676	1.00
3677	1.00
3678	1.00
3679	1.00
3691	1.00
3692	1.00
3694	1.00
3695	1.00
3699	1.00
3711	1.00
3713	1.00
3714	1.00
3715	1.00
3716	1.00
3721	1.00
3724	1.00
3728	1.00
3731	1.00
3732	1.00
3743	1.00

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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
3751	1.00
3761	1.00
3764	1.00
3769	1.00
3792	1.00
3795	1.00
3799	1.00
3812	1.00
3821	1.00
3822	1.00
3823	1.00
3824	1.00
3825	1.00
3826	1.00
3827	1.00
3829	1.00
3841	1.00
3842	1.00
3843	1.00
3844	1.00
3845	1.00
3851	1.00
3861	1.00
3873	1.00
3911	1.00
3914	1.00
3915	1.00
3931	1.00
3942	1.00
3944	1.00
3949	1.00
3951	1.00
3952	1.00
3953	1.00
3955	1.00
3961	1.00
3965	1.00
3991	1.00
3993	1.00
3995	1.00
3996	1.00



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<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
3999	1.00
4011	1.25
4013	1.25
4111	1.25
4119	1.25
4121	1.25
4131	1.25
4141	1.25
4142	1.25
4151	1.25
4173	1.25
4212	1.25
4213	1.25
4214	1.25
4215	1.25
4221	1.25
4222	1.25
4225	1.25
4226	1.25
4231	1.25
4311	9.99
4412	1.35
4424	1.35
4432	1.35
4449	1.35
4481	1.35
4482	1.35
4489	1.35
4491	1.35
4492	1.35
4493	1.35
4499	1.35
4512	1.10
4513	1.10
4522	1.10
4581	1.10
4612	1.10
4613	1.10
4619	1.10
4724	1.00
4725	1.00

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SIC	Industry Factor
4729	1.00
4731	1.00
4741	1.00
4783	1.00
4785	1.00
4789	1.00
4812	1.00
4813	1.00
4822	1.00
4832	1.00
4833	1.00
4841	1.00
4899	1.00
4911	1.05
4922	1.05
4923	1.05
4924	1.05
4925	1.05
4931	1.05
4932	1.05
4939	1.05
4941	1.05
4952	1.25
4953	1.25
4959	1.25
4961	1.05
4971	1.05
5012	1.00
5013	1.00
5014	1.00
5015	1.00
5021	1.00
5023	1.00
5031	1.00
5032	1.00
5033	1.00
5039	1.00
5043	1.00
5044	1.00
5045	1.00
5046	1.00

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SIC	Industry Factor
5047	1.00
5048	1.00
5049	1.00
5051	1.00
5052	1.00
5063	1.00
5064	1.00
5065	1.00
5072	1.00
5074	1.00
5075	1.00
5078	1.00
5082	1.00
5083	1.00
5084	1.00
5085	1.00
5087	1.00
5088	1.00
5091	1.00
5092	1.00
5093	1.00
5094	1.00
5099	1.00
5111	1.00
5112	1.00
5113	1.00
5122	1.00
5131	1.00
5136	1.00
5137	1.00
5139	1.00
5141	1.00
5142	1.00
5143	1.00
5144	1.00
5145	1.00
5146	1.00
5147	1.00
5148	1.00
5149	1.00
5153	1.00

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SIC	Industry Factor
5154	1.00
5159	1.00
5162	1.00
5169	1.00
5171	1.00
5172	1.00
5181	1.00
5182	1.00
5191	1.00
5192	1.00
5193	1.00
5194	1.00
5198	1.00
5199	1.00
5211	1.00
5231	1.00
5251	1.00
5261	1.00
5271	1.00
5311	1.00
5331	1.00
5399	1.00
5411	1.00
5421	1.00
5431	1.00
5441	1.00
5451	1.00
5461	1.00
5499	1.00
5511	1.00
5521	1.00
5531	1.00
5541	1.00
5551	1.00
5561	1.00
5571	1.00
5599	1.00
5611	1.00
5621	1.00
5632	1.00
5641	1.00

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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
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SIC	Industry Factor
5651	1.00
5661	1.00
5699	1.00
5712	1.00
5713	1.00
5714	1.00
5719	1.00
5722	1.00
5731	1.00
5734	1.00
5735	1.00
5736	1.00
5812	1.15
5813	1.15
5912	1.00
5921	1.00
5932	1.00
5941	1.00
5942	1.00
5943	1.00
5944	1.00
5945	1.00
5946	1.00
5947	1.00
5948	1.00
5949	1.00
5961	1.00
5962	1.00
5963	1.00
5983	1.00
5984	1.00
5989	1.00
5992	1.00
5993	1.00
5994	1.00
5995	1.00
5999	1.00
6011	0.95
6019	0.95
6021	0.95
6022	0.95

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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
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SIC	Industry Factor
6029	0.95
6035	0.95
6036	0.95
6061	0.95
6062	0.95
6081	0.95
6082	0.95
6091	0.95
6099	0.95
6111	0.95
6141	0.95
6153	0.95
6159	0.95
6162	0.95
6163	0.95
6211	1.00
6221	1.00
6231	1.00
6282	1.00
6289	1.00
6311	0.95
6321	0.95
6324	0.95
6331	0.95
6351	0.95
6361	0.95
6371	0.95
6399	0.95
6411	0.95
6512	1.00
6513	1.00
6514	1.00
6515	1.00
6517	1.00
6519	1.00
6531	1.00
6541	1.00
6552	1.00
6553	1.00
6712	0.95
6719	0.95

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SIC	Industry Factor
6722	0.95
6726	0.95
6732	0.95
6733	0.95
6792	0.95
6794	0.95
6798	0.95
6799	0.95
7011	1.05
7021	1.05
7032	1.05
7033	1.05
7041	1.05
7211	1.05
7212	1.05
7213	1.05
7215	1.05
7216	1.05
7217	1.05
7218	1.05
7219	1.05
7221	1.05
7231	1.05
7241	1.05
7251	1.05
7261	1.05
7291	1.05
7299	1.05
7311	0.95
7312	0.95
7313	0.95
7319	0.95
7322	0.95
7323	0.95
7331	1.00
7334	1.00
7335	1.00
7336	1.00
7338	1.00
7342	1.25
7349	1.25

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SIC	Industry Factor
7352	1.00
7353	1.00
7359	1.00
7361	1.00
7363	1.00
7371	0.90
7372	0.90
7373	0.90
7374	0.90
7375	0.90
7376	0.90
7377	0.90
7378	0.90
7379	0.90
7381	1.00
7382	1.00
7383	1.00
7384	1.00
7389	1.00
7513	1.05
7514	1.05
7515	1.05
7519	1.05
7521	1.05
7532	1.05
7533	1.05
7534	1.05
7536	1.05
7537	1.05
7538	1.05
7539	1.05
7542	1.05
7549	1.05
7622	1.05
7623	1.05
7629	1.05
7631	1.05
7641	1.05
7692	1.05
7694	1.05
7699	1.05



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<b>Group Critical Illness Rate Manual (Policy Series GC 5700)</b>	<b>Date: 04/01/2012</b>
<b>Premium Calculation - Plan Year 120</b>	

SIC	Industry Factor
7812	1.00
7819	1.00
7822	1.00
7829	1.00
7832	1.00
7833	1.00
7841	1.00
7911	1.05
7922	1.05
7929	1.05
7933	1.05
7941	1.05
7948	1.05
7991	1.05
7992	1.05
7993	1.05
7996	1.05
7997	1.05
7999	1.05
8011	1.00
8021	1.00
8031	1.00
8041	1.00
8042	1.00
8043	1.00
8049	1.00
8051	1.00
8052	1.00
8059	1.00
8062	1.00
8063	1.00
8069	1.00
8071	1.00
8072	1.00
8082	1.00
8092	1.00
8093	1.00
8099	1.00
8111	0.90
8211	0.95
8221	0.95

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SIC	Industry Factor
8222	0.95
8231	0.95
8243	0.95
8244	0.95
8249	0.95
8299	0.95
8322	1.05
8331	1.05
8351	1.05
8361	1.05
8399	1.05
8412	1.00
8422	1.00
8611	1.00
8621	1.00
8631	1.00
8641	1.00
8651	1.00
8661	1.00
8699	1.00
8711	0.90
8712	0.90
8713	0.90
8721	0.90
8731	0.90
8732	0.90
8733	0.90
8734	0.90
8741	0.90
8742	0.90
8743	0.90
8744	0.90
8748	0.90
8811	9.99
8999	1.05
9111	1.00
9121	1.00
9131	1.00
9199	1.00
9211	1.15
9221	1.15

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SIC	Industry Factor
9222	1.15
9223	1.15
9224	1.25
9229	1.15
9311	1.05
9411	1.05
9431	1.05
9441	1.05
9451	1.05
9511	1.05
9512	1.05
9531	1.05
9532	1.05
9611	1.05
9621	1.05
9631	1.05
9641	1.05
9651	1.05
9661	1.05
9711	1.15
9721	1.15
9999	1.15

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Appendix B – Area Factors

<b>State Name</b>	<b>Begin Zip Code</b>	<b>End Zip Code</b>	<b>Factor</b>
Other	00001	00999	1.00
MA	01000	02799	1.00
RI	02800	02999	1.00
NH	03000	03899	1.00
ME	03900	04999	1.00
VT	05000	05999	1.00
CT	06000	06999	1.00
NJ	07000	08999	1.00
NY	10000	14999	1.00
PA	15000	19699	1.00
DE	19700	19999	1.00
DC	20000	20599	1.00
MD	20600	21999	1.00
VA	22000	24699	1.00
WV	24700	26899	1.00
NC	27000	28999	1.00
SC	29000	29999	1.05
GA	30000	31999	1.05
FL	32000	34999	1.05
AL	35000	36999	1.05
TN	37000	38599	1.05
MS	38600	39799	1.05
GA	39800	39999	1.05
KY	40000	42799	1.05
OH	43000	45999	1.00
IN	46000	47999	1.00
MI	48000	49999	1.00
IA	50000	52899	0.95
WI	53000	54999	0.95
MN	55000	56799	0.95
SD	57000	57999	0.95
ND	58000	58899	0.95
MT	59000	59999	1.00
IL	60000	62999	0.95
MO	63000	65899	0.95
KS	66000	67999	0.95
NE	68000	69399	0.95
LA	70000	71499	1.05
AR	71600	72999	1.05
OK	73000	74999	1.00
TX	75000	79999	1.00

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<b>State Name</b>	<b>Begin Zip Code</b>	<b>End Zip Code</b>	<b>Factor</b>
CO	80000	81699	0.95
WY	82000	83199	1.00
ID	83200	83899	1.00
UT	84000	84799	1.00
AZ	85000	86599	1.00
NM	87000	88499	1.00
TX	88501	88900	1.00
NV	88901	89899	1.00
CA	90000	96199	1.10
HI	96700	96899	1.00
OR	97000	97999	0.95
WA	98000	99499	0.95
AK	99500	99999	1.00

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Appendix C – Non-Commission Expense

Beginning Annual Pre-Expense Amount	Ending Annual Pre-Expense Amount	Non-Commission Expense
1	100	0.1945
101	250	0.1846
251	500	0.1753
501	1000	0.1664
1001	1500	0.1581
1501	2000	0.1503
2001	3000	0.1429
3001	4000	0.1359
4001	6000	0.1289
6001	8000	0.122
8001	10000	0.1161
10001	12000	0.1106
12001	15000	0.1055
15001	20000	0.1006
20001	25000	0.096
25001	35000	0.0896
35001	40000	0.0845
40001	50000	0.0818
50001	60000	0.0779
60001	70000	0.0755
70001	80000	0.0731
80001	100000	0.0703
100001	150000	0.0668
150001	200000	0.0639
200001	250000	0.0607
250001	300000	0.0582
300001	350000	0.0565
350001	400000	0.055
400001	450000	0.0534
450001	600000	0.0519
600001	800000	0.0504
800001	1000000	0.049
1000001	2500000	0.0475
2500001	5000000	0.0462
5000001	9999999	0.0453

SERFF Tracking Number: PRLF-128127620 State: District of Columbia  
Filing Company: Principal Life Insurance Company State Tracking Number:  
Company Tracking Number:  
TOI: H07G Group Health - Specified Disease - Sub-TOI: H07G.001 Critical Illness  
Limited Benefit  
Product Name: Critical Illness -Rate  
Project Name/Number: /

## Supporting Document Schedules

**Item Status:** **Status**  
**Date:**

**Satisfied - Item:** Actuarial Justification

**Comments:**

The requested information noted above is included within the Actuarial Memorandum attached below and also under the Rate/Rule Schedule tab. Thank you

**Item Status:** **Status**  
**Date:**

**Satisfied - Item:** Actuarial Memorandum

**Comments:**

Also attached under the Rate/Rule Schedule Tab

**Attachment:**

CI 120 Actuarial Memo.pdf

**Principal Life Insurance Company**  
**Group Critical Illness, GC 5700**  
**Actuarial Memorandum**  
**March 1, 2012**

The purpose of this filing is to disclose the process used to determine group critical illness (CI) premiums only and to certify that such premiums are reasonable and appropriate. This memorandum should not be used for any other purposes.

I. Benefit and Rate Description

This policy form provides a benefit for Critical Illness, issued on a group basis. An eligible covered insured is paid a lump sum upon providing adequate proof of the critical illness, and satisfying all other requirements of the group policy.

Pricing assumptions were developed based on experience maintained by our reinsurance provider. The filed rate manual outlines the assumptions used in pricing these policies.

II. Loss Ratio Standards

The anticipated loss ratio for this policy form is expected to be no less than 60%.

III. Renewability

The policy is annually renewable subject to the conditions of the Policy Termination provisions.

IV. Actuarial Certification

To the best of my knowledge and judgment, the premiums charged are reasonable in relation to the benefits provided and are based on sound and commonly accepted actuarial principles. The rating method is based on objective and credible data and is actuarially sound and appropriate.

I, Jacob McCoy, am an actuary for Principal Life Insurance Company. I am a member of the American Academy of Actuaries and meet its qualification standards for disclosing rating methodologies.



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