

Cat WS – Health CAT module

Maximum benefits payable

Mean hypotheses

SCR mass risk

r (France)	0,05%
Number of contracts	400 000
Mean number of grantees per contract	2,0
Mean age of grantees	40
Retirement age	62
Mean annual cost IPP=100%	10 000
Mean death cost	100 000
Number of days at hospital	8
Mean cost of an hospital day	100
Mean cost per day income protection	25

	Ratio of persons afected x_e	Mean insured value	SCR _{mass}
Death	10%	100 000	4 000 000
Permanent disability	1,50%	220 000	1 320 000
10yr disability	5%	100 000	2 000 000
1yr disability	13,50%	10 000	540 000
Medical treatment	30%	1 000	120 000
SCR_{mass gross}			7 980 000

Mean hypotheses

SCR pandemic risk

r1 (France)	0,0075%
r2 (France)	40%
Number of contracts	400 000
Mean number of grantees per contract	2,0
Mean age of grantees	40
Retirement age	62
Mean annual cost IPP=100%	10 000
Mean cost for no formal medical care	0
Number of days at hospital	8
Mean cost of an hospital day	100
Mean cost per day income protection	25
Number of medical consultations	3
Mean cost of medical consultation	10

	Ratio of persons affected	Mean insured value	SCR _{pandemic}
Disability	NA	220 000	13 200 000
Hospitalisation	1%	1 000	3 200 000
Medical consultation	20%	30	1 920 000
No formal medical care	79%	0	0
SCR_{pand gross}			18 320 000

Mean hypotheses

SCR concentration risk

Number of insurees in biggest risk		1000	
	Ratio of persons affected x_e	Mean insured value	SCR _{concentration}
Death	10%	100 000	10 000 000
Permanent disability	1,50%	220 000	3 300 000
10yr disability	5%	100 000	5 000 000
1yr disability	13,50%	10 000	1 350 000
Medical treatment	30%	1 000	300 000
SCR _{conc gross}			19 950 000

SCR Health CAT

SCR mass risk gross	7 980 000
SCR concentration gross	19 950 000
SCR pandemic gross	18 320 000
SCR health CAT gross	28 236 595

Sensitivity testing

Test	SCR Health CAT with concentration	Delta	SCR Health CAT without concentration	Delta
Central scenario	28 236 595	0%	19 982 562	0%
Mean age: 40 -> 30	33 543 722	19%	25 789 122	29%
Mean age: 40 -> 50	23 380 533	-17%	14 361 295	-28%
Mean annual cost: 10 000 -> 4 000	18 459 320	-35%	11 842 335	-41%
Mean annual cost: 10 000 -> 20 000	44 831 418	59%	33 670 402	68%
Mean annual cost: 10 000 -> 12 000	31 538 128	12%	22 713 853	14%
Death: 100k -> 50k	24 390 271	-14%	19 271 295	-4%
Death: 100k -> 150k	32 522 689	15%	20 861 994	4%
Number of days at hospital: 8 -> 4	27 098 428	-4%	18 500 941	-7%
Number of days at hospital: 8 -> 12	29 418 668	4%	21 481 341	8%
Mean cost of an hospital day: 100 -> 50	27 322 283	-3%	18 795 697	-6%
Mean cost of an hospital day: 100 -> 150	29 178 994	3%	21 180 387	6%
Mean cost for no formal medical care: 0 -> 20	31 750 910	12%	NA	NA
Number of medical consultations: 3 -> 1	27 423 430	-3%	NA	NA
Number of medical consultations: 3 -> 4	28 655 968	1%	NA	NA
Mean cost of medical consultation: 10 -> 30	30 866 624	9%	NA	NA

Wayforward

- ❑ **Number of medical consultations, number of days at hospital: should be harmonised in the DA**
 - Proposal to stick at 8 days / 3 consultations, which appear to be mean values, unless new data arise
- ❑ **EIOPA GL should precise how to compute age, mean costs for death, hospital day, medical consultation, annual disability cost, no formal care**
- ❑ **EIOPA GL should provide benchmarks per country**

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10 year disability scenario

Rationale behind the CTF scenarios

		WTC figures		WTC proposal		Final proposal	
Death		12 %		12 %		10 %	
Permanent disability	Total	3.2 %	0.2 %	1 %	1 %	1.5 %	1.5 %
	Partial		3 %		0 %		0 %
Temporary disability	1yr	6 %	NA	9 %	6 %	18.5 %	5 %
	10yr		NA		3 %		13.5 %
Medical		3.5 %		25 %		30 %	

1° Low occupancy of WTC at the time of the attack

2° Bombings generate more permanent injuries than building collapses

- The overcharge of the 10yr scenario is meant to reflect the high number of permanent injuries

New proposal

- ❑ Delete the 10yr unrealistic scenario
- ❑ Keep the 100% disability for the sake of simplification
- ❑ Keep the 60% of people injured

	WTC figures	CTF proposal	New proposal
Death	12 %	10 %	10 %
Permanent disability	3.2 %	1.5 %	3.5 %
Temporary disability	6 %	18.5 %	16.5 %
Medical	3.5 %	30 %	30 %

Impact of the new proposal

SCR mass risk

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	Ratio of persons affected x_e	Mean insured value	SCR _{mass}
Death	10%	100 000	4 000 000
Permanent disability	3,5%	220 000	3 080 000
10yr disability		100 000	0
1yr disability	16,5%	10 000	660 000
Medical treatment	30%	1 000	120 000
SCR _{mass gross}			7 860 000
Central			7 980 000

-1,5%

Impact of the new proposal

Test	SCR Mass 10yr	SCR Mass w/o 10yr	Delta
Age = 40, annual cost = 10 000	7 980 000	7 860 000	-1,5%
Age = 45, annual cost = 7 000	6 612 000	6 248 000	-5,5%
Age = 35, annual cost = 12 000	9 112 000	9 448 000	3,7%
Age = 35, annual cost = 7 000	7 032 000	7 256 000	3,2%

- ❑ When full life is expensive (people younger, annual cost higher)... new proposal is a bit less conservative
- ❑ With mean hypotheses, results are very close

Should we delete the 10yr scenario ?

Any data on alternative scenario than WTC to ensure consistency?

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Concentration risk

Concentration risk

- ❑ **When collective contracts are sold: the biggest collective should be a good proxy**
 - Unless the biggest is split in 2 locations and the second biggest is in one location...

- ❑ **When no collective contracts are sold: no risk should be a good proxy**
 - Unless the small mutual is specialised e.g. in the firemen or the postmen of a specific region...

Wayforward

- ❑ **Either modify DA to recognize the ‘biggest collective contract’ simplification**
- ❑ **Or stick to the actual DA and develop EIOPA GL which underline that, generally speaking, the ‘biggest collective contract’ simplification is good, but companies should ensure it fits their own risk profile**