

Current Issues in Health Care Reserving: Provider Excess Insurance and the Casualty Actuary

Casualty Loss Reserve Seminar
September 16, 2011

Chris Coleianne
Aon Global Risk Consulting
Columbia, Maryland

Outline

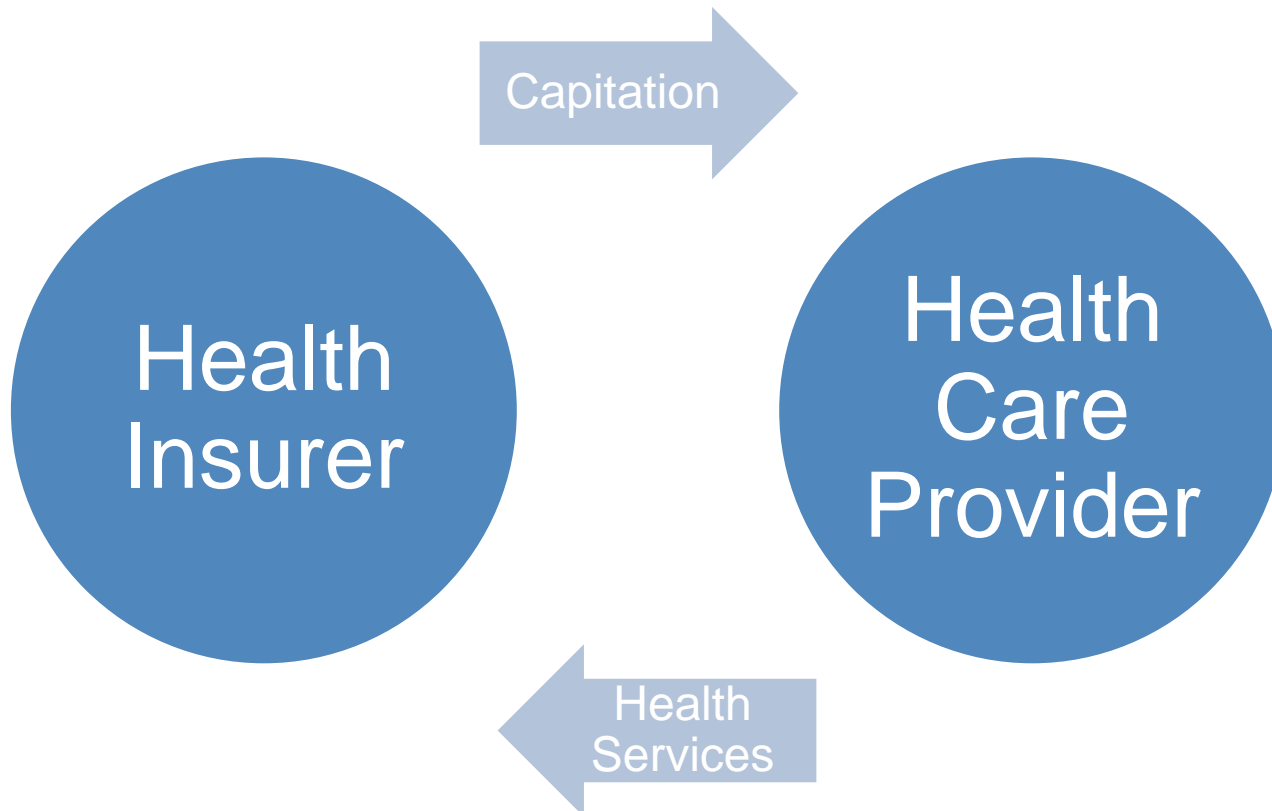
What is provider excess insurance?

Is this a casualty problem?

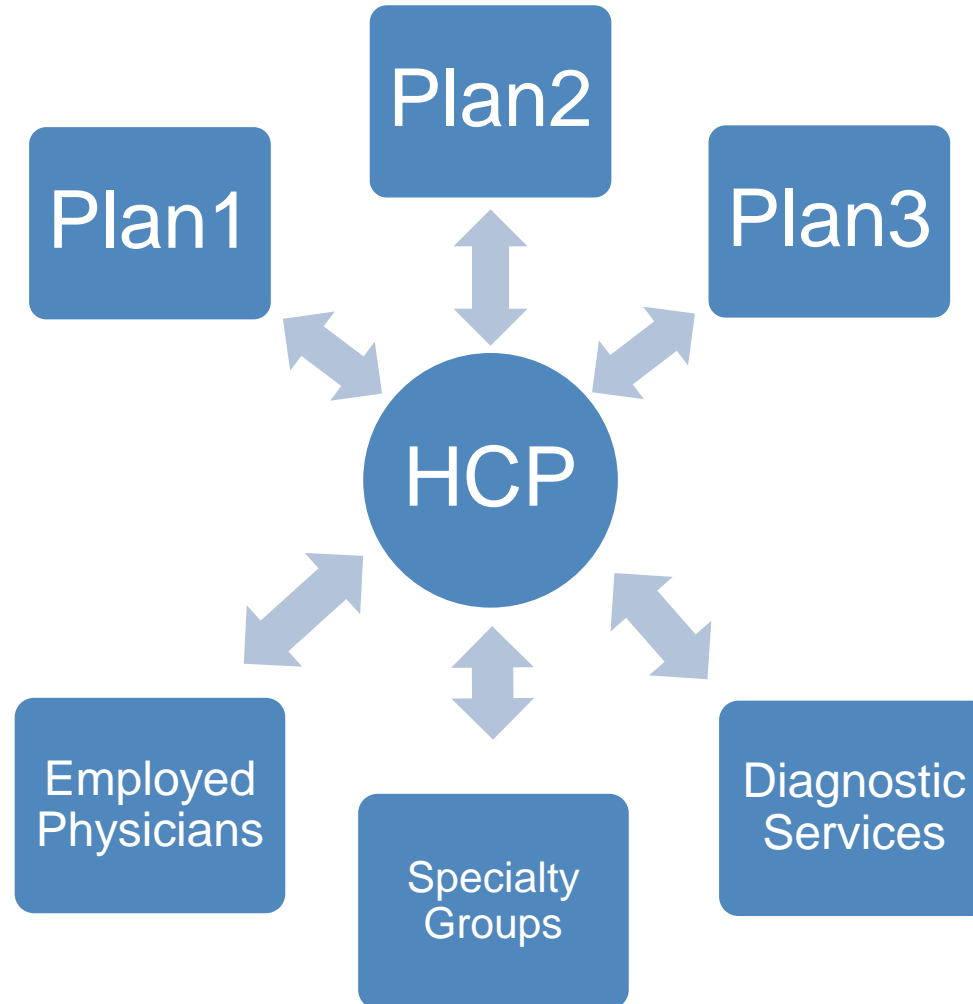
What makes this an issue for casualty actuaries to explore?

What are approaches to the problem?

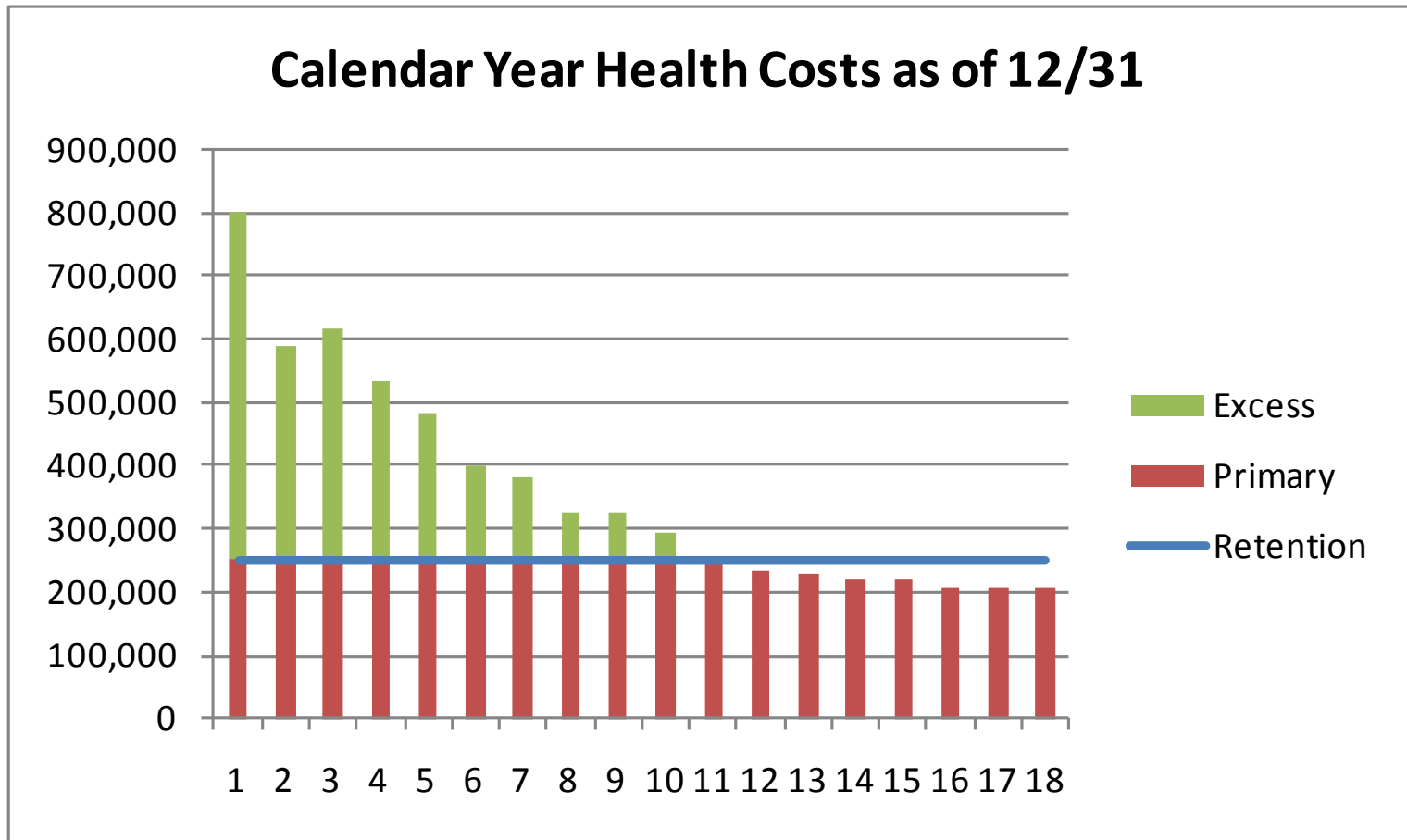
Provider Excess Insurance: What is it?



Provider Excess Insurance Can Be Complicated



Provider Excess Covers Paid Benefits in the Policy Term



Provider Excess Covers Paid Benefits in the Policy Term

Total	Gross	Primary	Retention	Excess	Coinsurance	Net Retained	Ceded
	6,526,000	4,277,000	250,000	2,249,000	10%	4,501,900	2,024,100

Member	Gross	Primary	Retention	Excess	Coinsurance	Net Retained	Ceded
1	802,000	250,000	250,000	552,000	55,200	305,200	496,800
2	588,000	250,000	250,000	338,000	33,800	283,800	304,200
3	615,000	250,000	250,000	365,000	36,500	286,500	328,500
4	533,000	250,000	250,000	283,000	28,300	278,300	254,700
5	482,000	250,000	250,000	232,000	23,200	273,200	208,800
6	400,000	250,000	250,000	150,000	15,000	265,000	135,000
7	381,000	250,000	250,000	131,000	13,100	263,100	117,900
8	328,000	250,000	250,000	78,000	7,800	257,800	70,200
9	325,000	250,000	250,000	75,000	7,500	257,500	67,500
10	295,000	250,000	250,000	45,000	4,500	254,500	40,500
11	250,000	250,000	250,000	0	0	250,000	0
12	235,000	235,000	250,000	0	0	235,000	0
13	230,000	230,000	250,000	0	0	230,000	0
14	222,000	222,000	250,000	0	0	222,000	0
15	219,000	219,000	250,000	0	0	219,000	0
16	208,000	208,000	250,000	0	0	208,000	0
17	207,000	207,000	250,000	0	0	207,000	0
18	206,000	206,000	250,000	0	0	206,000	0

Provider Excess Covers Paid Benefits in the Policy Term

- Provider accumulates charges on a per person basis
 - These aggregate toward the per occurrence retention
 - Not all care is included
 - Per diem limits
 - Out of network care may have a different limit
- When per person annual limit is breached, coverage is triggered
- There is usually co-insurance above the deductible
- Benefits are paid at regular settlement points based on paid care
 - 12/15 (but really 24 months and 27 months)
 - 12/18 (but really 24 months and 30 months)
- After the last settlement, the policy year is closed
- Aggregate deductibles can be found at a certain multiple of expected losses
- Usually there are high per occurrence excess limits

Why Is This A Casualty Problem?

- While related to Health, it is not a Health problem
 - The coverage does not deliver health care services to anyone
- The HCP has assumed a liability (the cost of providing health care) for a fixed fee.
 - The insurance protects the HCP in case the fixed fee is not enough
- Unlike self funded health plans, PEC is not a contract between employers and employees, and is not subject to ERISA regulations
 - Therefore no involvement by Enrolled Actuaries is required
- Health actuaries tend not to want involvement
 - Pricing health plans is their core skill

Applicable Standard of Practice

- ASOP 38. Using Models Outside the Actuary's Area of Expertise
- ASOP 43. Property/Casualty Unpaid Claim Estimates
- ASOP 41. Actuarial Communications

Why is this a Current Issue?

- Provider Excess Insurance has existed since at least the early 90s.
- Late 90s
- Early 00s
- Why is this relevant again?

Pricing Versus Reserving



Pricing

- Modeling approach
- Method approach
- Data requirements
 - Requires history of plan
 - Apply program limitations to claims history
 - Adjust to current conditions/provisions
 - Relate to exposure
- Considerations
 - Population
 - Truncated data
 - Expenses

Pricing Example

Claims Incurred 1/1/2010 through 12/31/2010 and paid through 11/30/2010

Key Assumptions:

Trend:	1.100
Completion:	109%
Coinsurance:	100%
Member Months:	664,794
Claim Count:	59

Member Last Name	Group	Paid Amount	Trended & Completed Claims	Excess Losses at 100% Coinsurance		
				150,000	250,000	300,000
Total:		11,912,985	14,336,086	5,486,086	3,224,507	2,792,552
PMPM:			21.56	8.25	4.85	4.20

□□□□□	Commercial	1,623,822	1,954,107	1,804,107	1,704,107	1,654,107
□□□□□□□□□□□□□□	Commercial	676,627	814,253	664,253	564,253	514,253
□□□□□□□	Commercial	439,857	529,324	379,324	279,324	229,324
□□□□□	Medicare	389,529	468,759	318,759	218,759	168,759
□□□□□	Commercial	332,139	399,696	249,696	149,696	99,696
□□□□□□□□	Commercial	301,259	362,535	212,535	112,535	62,535
□□□□□□□	Medicare	287,011	345,389	195,389	95,389	45,389
□□□□□□□□	Medicare	264,657	318,488	168,488	68,488	18,488
□□□□□□□□	Medicare	223,851	269,382	119,382	19,382	0
□□	Commercial	216,480	260,512	110,512	10,512	0
□□□□	Medicare	209,457	252,061	102,061	2,061	0
□□□□□□□□	Medicare	199,592	240,189	90,189	0	0
□□□□□□□□	Medicare	196,733	236,748	86,748	0	0
□□□□□□□□	Commercial	191,150	230,030	80,030	0	0
□□□□□□□□□□	Commercial	188,767	227,162	77,162	0	0
□□□□□□	Medicare	181,969	218,981	68,981	0	0

Reserving Example

- Development is very quick
- Make sure you know the plan provisions
 - 12/15 (but really 24 months and 27 months)
 - 12/18 (but really 24 months and 30 months)
- After the plan year is closed, all losses will be known
- Pipeline IBNR

Reserving Example

Health Care Plan Liabilities Bulk Historical Development

Policy Year	Age 12	Age 13	Age 14	Age 23	Age 24	Age 36
2005	\$3,626,193		\$3,849,851	\$4,916,879		\$4,425,191 ▼
2006	\$1,716,942	\$2,314,265			\$2,621,104	
2007	\$1,791,317	\$1,836,830				
Policy Year	12->13/14	13->24, 14->23	23->ult			
2005	1.062	1.277	0.900			
2006	1.348	1.133				
2007	1.025					
Avg	1.145	1.205	0.900			
Sel	1.150	1.180	1.000			
Cumulative	1.357	1.180	1.000			

Reserving Example

Policy Year 2007								
Plan Type	Covered Payments by HP	Deductible	Payments Excess of Deductible	Captive Layer Excess Deductible	Total Recoverable Amount	Insurer Gross Liability	Captive Liability	Insurer Net Liability
HMO	\$1,623,822	\$200,000	\$1,423,822	\$300,000	\$1,281,440	\$1,000,000	\$270,000	\$730,000
HMO	\$301,259	\$200,000	\$101,259	\$101,259	\$91,133	\$91,133	\$91,133	\$0
HMO	\$441,126	\$200,000	\$241,126	\$241,126	\$217,014	\$217,014	\$217,014	\$0
HMO	\$115,803	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
MCR	\$287,011	\$200,000	\$87,011	\$87,011	\$78,310	\$78,310	\$78,310	\$0
MCR	\$390,484	\$200,000	\$190,484	\$190,484	\$171,436	\$171,436	\$171,436	\$0
MCR	\$261,957	\$200,000	\$61,957	\$61,957	\$55,762	\$55,762	\$55,762	\$0
MCR	\$201,296	\$200,000	\$1,296	\$1,296	\$1,166	\$1,166	\$1,166	\$0
COM	\$676,729	\$200,000	\$476,729	\$300,000	\$429,056	\$429,056	\$270,000	\$159,056
COM	\$213,480	\$200,000	\$13,480	\$13,480	\$12,132	\$12,132	\$12,132	\$0
COM	\$325,197	\$200,000	\$125,197	\$125,197	\$112,678	\$112,678	\$112,678	\$0
COM	\$270,265	\$200,000	\$70,265	\$70,265	\$63,239	\$63,239	\$63,239	\$0
COM	\$202,558	\$200,000	\$2,558	\$2,558	\$2,302	\$2,302	\$2,302	\$0
QCP	\$579,761	\$500,000	\$79,761	\$0	\$71,785	\$71,785	\$0	\$71,785
QCP	\$220,279	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0
QCP	\$219,260	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0
QCP	\$344,399	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0
QCP	\$231,906	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0
MCR	\$217,227	\$200,000	\$17,227	\$17,227	\$15,504	\$15,504	\$15,504	\$0

Reserving Example

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
Policy Year beginning 1/1	Liabilities Based on Known Claims as of 12/31/07	Emergence 12/31/07 to 1/28/08	Liabilities Based on Known Claims as of 1/28/08	Development Factor to Ultimate	Ultimate Liabilities	Paid as of 12/31/07	Outstanding Liabilities	IBNR	Payable and Case Reserves
2005	\$4,425,191	\$0	\$4,425,191	1.000	\$4,425,191	\$4,155,350	\$269,841	\$0	\$269,841
2006	\$2,621,104	\$0	\$2,621,104	1.000	\$2,621,104	\$703,470	\$1,917,633	\$0	\$1,917,633
2007	\$1,791,317	\$45,513	\$1,836,830	1.180	\$2,167,459	\$6,500	\$2,160,959	\$330,629	\$1,830,330
Total	\$8,837,612	\$45,513	\$8,883,124		\$9,213,754	\$4,865,321	\$4,348,433	\$330,629	\$4,017,804

Additional Resources

- CAS materials
 - An Introduction to Capitation and Health Care Provider Excess Insurance
 - www.casact.org/pubs/dpp/dpp97/97dpp097.pdf
- SOA materials
 - Provider Excess Insurance Contract Considerations by Gregory G. Demars
 - <http://www.soa.org/library/newsletters/reinsurance-section-news/2007/november/rsn-2007-iss61-demars.pdf>
 - 1999 Spring Meeting Transcript of Provider Excess: Is it Rosy or Merely Thorny
 - <http://www.soa.org/library/proceedings/record-of-the-society-of-actuaries/2000-09/2000/january/rsa00v26n162pd.pdf>
 - 2002 Spring Meeting Transcript of Provider Excess Stop Loss
 - <http://www.soa.org/library/proceedings/record-of-the-society-of-actuaries/2000-09/2002/january/rsa02v28n241pd.pdf>
- Medical Cost Trend Indices
 - <http://www.bls.gov/cpi/#data>