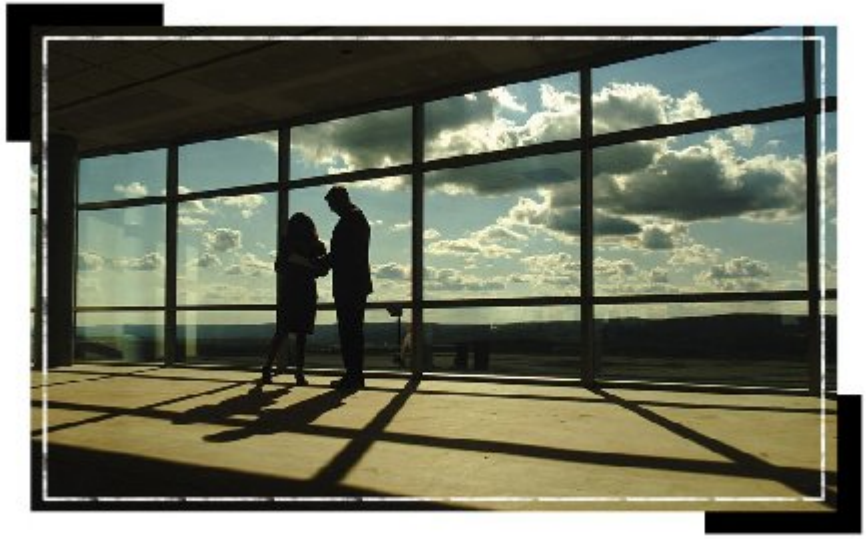
November 13, 2008

Actuaries Club of the Southwest Fall Meeting

Research on Catastrophic Claims Trends

Timothy Robinson, FSA, MAAA
Windsor Strategy Partners, LLC



Windsor Strategy Partners LLC

Part 1 – Research on Catastrophic Claims

- What are today's claims?
- Some statistics
- What is driving catastrophic claims?
- What can we expect to see in the future?
- Are they all inevitable or can we do something to avoid some of them?
- Final thoughts

What are today's claims?

- The usual suspects
  - Cancer
  - Neonates
  - Traumatic injury
  - Cardiovascular disease
- Some new suspects
  - Infections
    - MRSA
    - TB
    - HPV and others
  - Quality of care issues
    - Can be mixed with infections and other

Some Statistics

- From a data set prepared by D2Hawkeye
- Culled from roughly 5,000,000 member lives
- Criteria was total billed claims in past 24 months >$200,000
- Data through 12/31/07 (paid dates)
- 7798 claimants in the data base
- Not all claimants had claims in both years
  - New clients
  - Deaths
  - Loss of eligibility

Some Statistics

Claim Size	> $4,000,000	> $3,000,000	> $2,000,000	> $1,500,000	> $1,000,000
CY 2006	1	5	17	31	93
CY 2007	1	7	21	39	129

Claims are in billed dollars.

Some Statistics

Diagnosis	Cancer	Heart & Circulatory	Infections	Preemies	Transplants	Trauma	Other
CY 2006	4	4	3	2	1	3	0
CY 2007	4	1	8	4	0	2	2

Claims over $2,000,000 billed in the Calendar Year. Some transplants in 2007 resulted in infections which drove the cost. These were classed as infections in the above table. Diabetes Mellitus was a contributing factor in several of these catastrophic claims. Actual discounts to paid varied from 90+% to less than 15%.

What is driving catastrophic claims?

- Poor quality care
  - Errors lead to complications
  - Quality issues perversely create revenue streams for hospitals
- Poor contracting and contract management
  - Outliers and out of network
- Demographics
- Lifestyle choices
  - CDC survey on STD prevalence in teens
- Obesity
  - Starting on a study with an medical school to evaluate the link between Obesity and Neonatal singletons
- Specialty pharmacy – tailored drugs
  - Clotting factors
  - Rare diseases – Gauchers - $300,000 annual Rx expense

What can we expect in the future?

- More cancer
- More heart disease
- More infections
- More transplants
- More dementia and Alzheimer's
  - Some infection related
- A fall off in immunizations
  - Raises other long term concerns

Are they all inevitable or can we do something to avoid some of them?

- Some are impossible to predict except in large populations
  - Even then, we can't manage away from these disasters
- Many can be managed more efficiently
  - May require some tougher ethical choices
- Many can be avoided or minimized
  - Diabetes complications (see examples in Part 2)
  - Aggressive negotiations on specialty pharmacy
  - Evaluation of cost effective alternatives

Some Final Thoughts

- Most truly catastrophic claims are the result of quality of care issues
- Obesity is going to drive much of our chronic disease
- These large claims create problems for us all
  - Perverse incentives in the provider community
  - Plan maximums are becoming meaningful
  - Projections of future claim expense is often understated because of complex comorbidity

Part 2 Data

The Diabetes Case Study

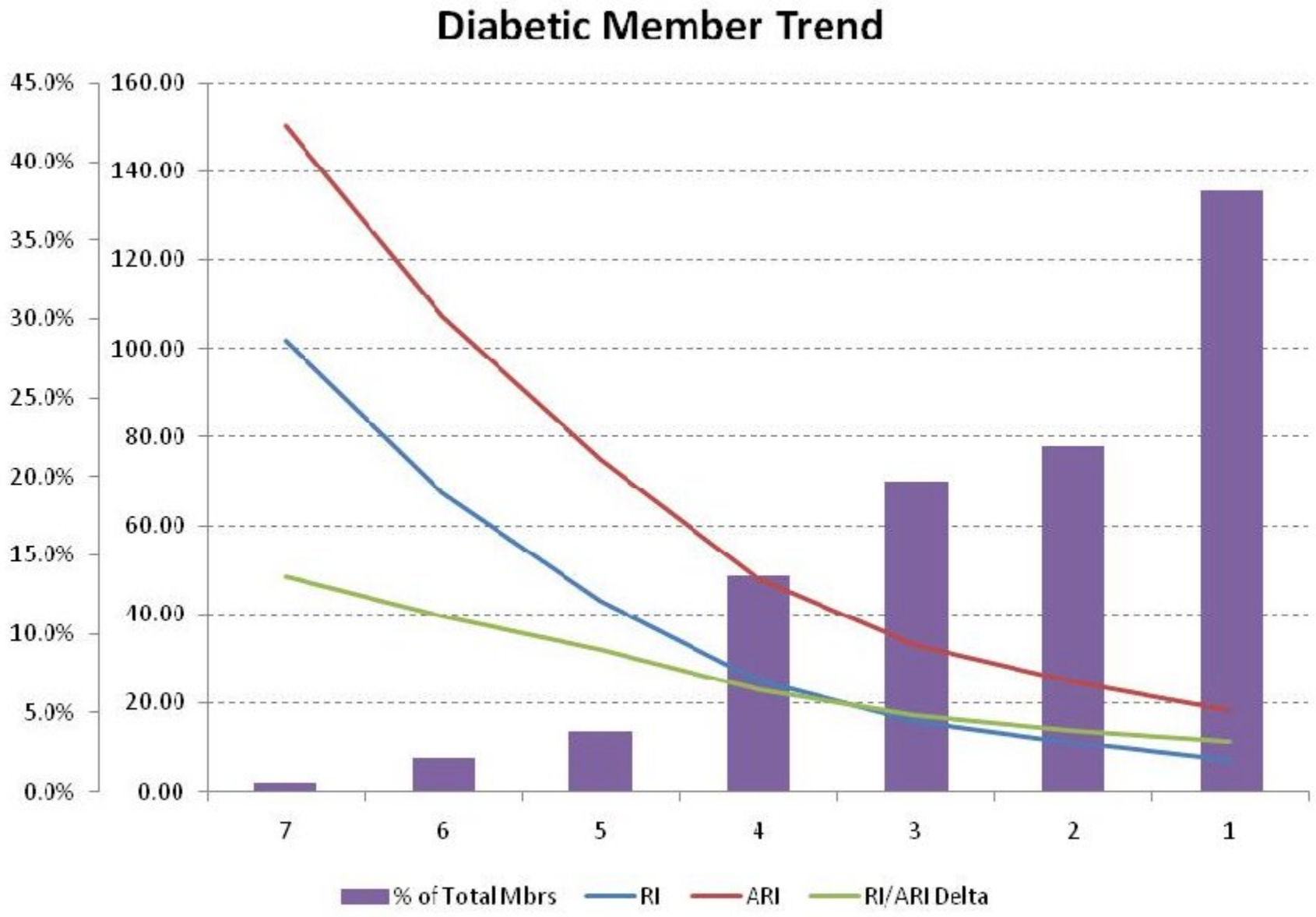
Further Statistics

Case Study – Diabetic Population of Members

- A total of 6,306 diabetic members grouped into 7 classes by cost
- As ER visits, Office visits and Admissions increase, average cost per member increases
- Percentage of total members decreases for higher cost class

Clinical/Utilization Profile									
Cost	Size Band								
Bucket	bottom	top	Members	Avg Cost	Diseases	ER Visits	Office Visits	Admits	ALOS
7	$ 250,000		46	$422,829	5.3	3.85	34.96	4.52	20.87
6	$ 100,000	$ 249,999	166	$148,281	4.7	3.58	34.03	2.95	9.43
5	$ 50,000	$ 99,999	374	$67,774	4.0	1.81	25.68	1.60	7.11
4	$ 20,000	$ 49,999	1183	$30,107	3.2	1.25	21.09	0.78	4.24
3	$ 10,000	$ 19,999	1548	$14,342	2.5	0.77	14.86	0.32	3.82
2	$ 5,000	$ 9,999	1592	$7,304	2.2	0.50	10.91	0.14	4.71
1	$ -	$ 4,999	2263	$2,300	1.8	0.24	6.63	0.06	4.13

Case Study – Diabetic Population of Members

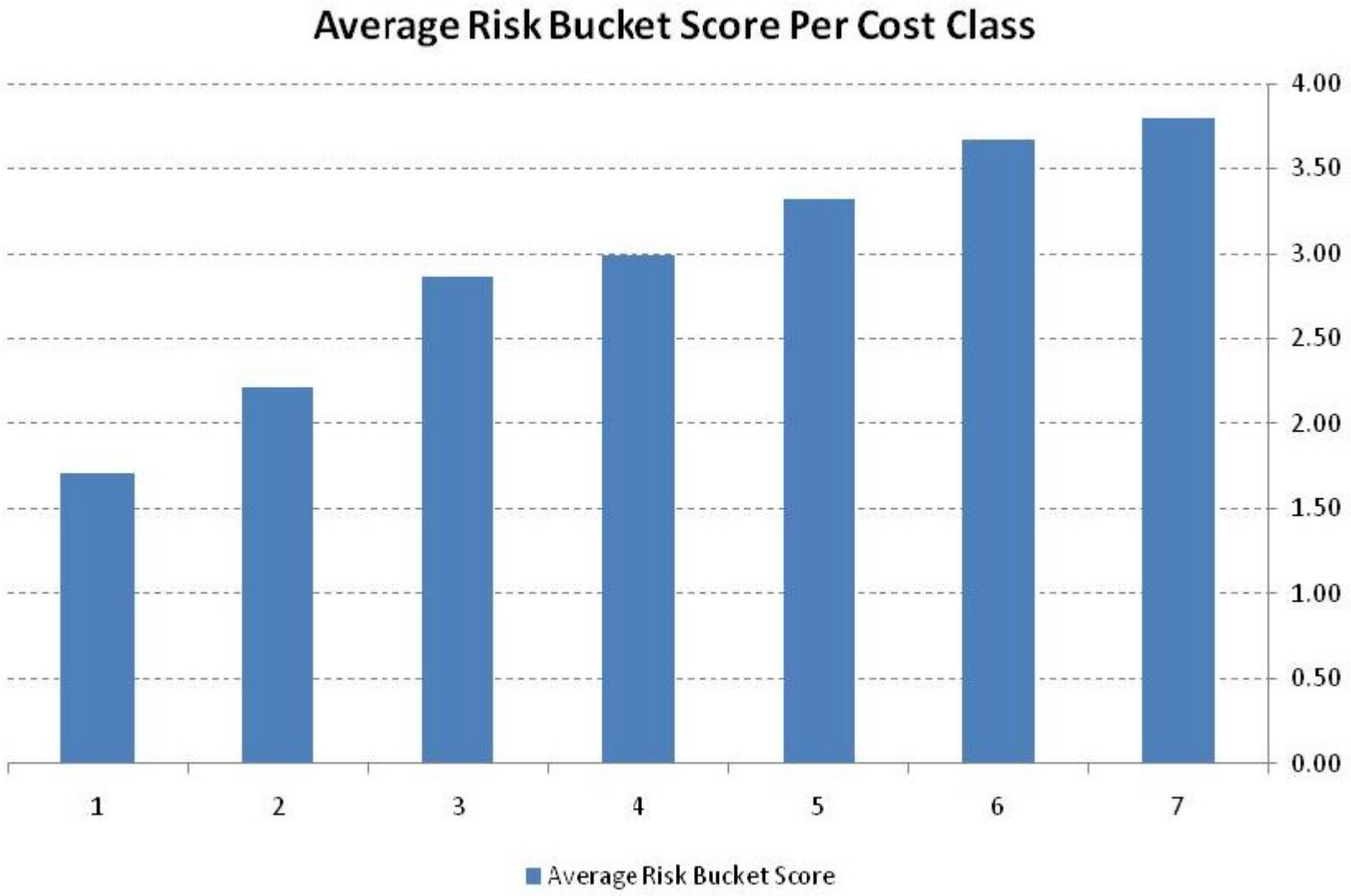


Windsor Strategy Partners inc

Case Study – Diabetic Population of Members

Risk Profile								
Cost	Size Band						GAP	
Bucket	bottom	top	Members	Avg Cost	RI	ARI	ARI-RI	Avg RB
7	$ 250,000		46	$422,829	96.65	154.13	57.48	3.80
6	$ 100,000	$ 249,999	166	$148,281	64.34	107.73	43.40	3.68
5	$ 50,000	$ 99,999	374	$67,774	40.92	73.23	32.31	3.33
4	$ 20,000	$ 49,999	1183	$30,107	24.43	48.25	23.83	2.99
3	$ 10,000	$ 19,999	1548	$14,342	15.61	33.64	18.04	2.87
2	$ 5,000	$ 9,999	1592	$7,304	11.56	26.58	15.02	2.22
1	$ -	$ 4,999	2263	$2,300	7.37	19.78	12.39	1.71

Case Study – Diabetic Population of Members



Windsor Strategy Partners LLC

Case Study – Diabetic Population of Members

Cost	Member Distribution by Risk Bucket - percentage					
Bucket	1	2	3	4	5	Total
7	0.0%	8.7%	30.4%	32.6%	28.3%	100%
6	0.0%	10.2%	30.7%	39.8%	19.3%	100%
5	0.0%	7.5%	53.5%	38.0%	1.1%	100%
4	0.0%	10.6%	79.6%	9.7%	0.1%	100%
3	0.0%	14.3%	84.7%	0.8%	0.1%	100%
2	0.6%	79.0%	19.0%	0.6%	0.8%	100%
1	32.6%	64.8%	1.9%	0.4%	0.3%	100%

Cost bucket is where the member has been and risk bucket is where they are predicted to go for the next year.

Case Study – Diabetic Population of Members

- What can we learn from this?
  - The obvious: sicker folks cost more money and have more opportunities for the system to fail them and run up cost
  - A progression with increasing cost, morbidity measures go up and sick diabetics tend to stay sick…and costly
  - As the disease progresses, complications ensure, other diseases manifest and care becomes less optimal – the "gap" becomes larger

Distributions of Large Claims by Diagnosis

Top 20 Claims in 2007

Diagnosis	Client A	Client B	Client C
Cardiovascular	4	1	4
Cancer	1	7	4
Preemies	6	3	4
Infections	2	4	3
Trauma	1	0	2
Transplants	4	0	1
Other	2	5	2
Total	20	20	20