Australia & NZ Disability Income Experience

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Australian & NZ Market

- Benefit is a monthly annuity style benefit whilst person remains disabled
- Benefit based on income at time of underwriting (generally to max of 75% replacement) and is taxable
- Majority (90%) is annual renewal business (age rated based on age at renewal)
- Non-guaranteed rates
- Full offset if person earns income whilst disabled
- Agreed Value and Indemnity benefits are available

Australian & NZ Market

- Most common deferment periods are 30 and 90 day
- Benefit period is generally to Age 65, but 2 and 5 year periods also common for blue collar workers
- Many extras added :
 - Hospital benefit (pays benefit whilst in hospital during deferment period)
 - Rehabilitation benefits
 - Payment of minimum benefit period on certain accidents / illnesses

IAD 89-93 Standard Table

- Experience Reports for Australia and New Zealand are done on basis of comparing actual results to a standard table – IAD89-93
- IAD89-93 developed by the IAAust based on the Australian disability income experience for this period
- Incidence rates graduated by age/sex and 4 occupation classes
- Termination rates based on % of the US CIDA85 termination rate tables

IAD 89-93 Standard Table

- 4 Occupation classes
 - A: Professional and white collar
 - B : Other sedentary (light manual technical)
 - C: Light Manual (qualified trades persons)
 - D : Moderate to Heavy Manual

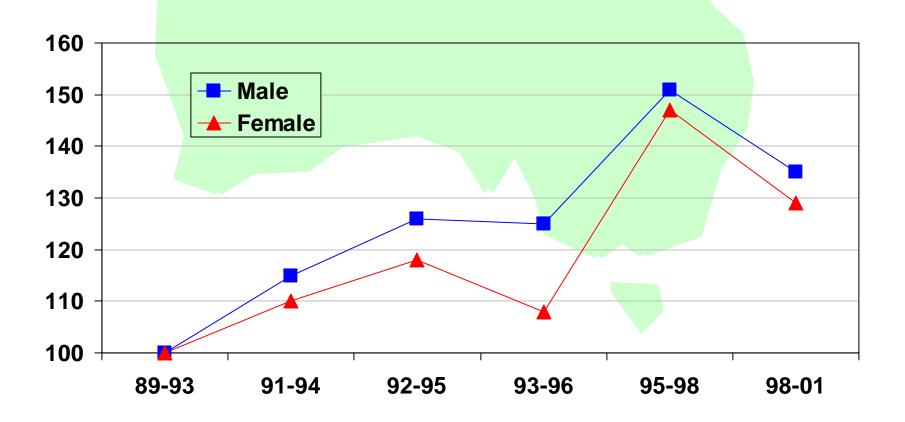
Australian Experience

WARNING

Experience results presented for Australia are preliminary. A final report has been written but is not yet published. Generally, the final report results show slightly more favourable trends that those indicated in this paper.

Australia – Latest Experience

Experience – Trends
Claim cost in first 3 years of claim: 1 mth deferment



Australia – Latest Experience Incidence Experience - Males

Incidence Rates - % of IAD89-93
Preliminary results for continuing companies only

| Males Occ Class | 2 week deferment 95-98 98-01 | | 1 month Deferment 95-98 98-01 | | |
|--------------------|---------------------------------|-----|----------------------------------|------|--|
| Α | 100% | 73% | 105% | 78% | |
| В | 94% | 81% | 101% | 97% | |
| С | 96% | 83% | 109% | 105% | |
| D | 94% | 73% | 113% | 108% | |
| | | | | | |
| All | 96% | 78% | 108% | 97% | |

Australia – Latest Experience Incidence Experience - Females

Incidence Rates - % of IAD89-93
Preliminary results for continuing companies only

| <u>Females</u> | | | | | |
|----------------|-------------|--------|-------------------|-------|-------|
| Occ Class | 2 week defe | erment | 1 month Deferment | | |
| | 95-98 | 98-01 | | 95-98 | 98-01 |
| Α | 96% | 72% | | 97% | 73% |
| В | 101% | 96% | | 97% | 79% |
| С | 93% | 83% | | 93% | 78% |
| D | 90% | 73% | | 84% | 53% |
| All | 95% | 74% | | 96% | 74% |

Occupation Relativities

Preliminary results for continuing companies only

Weighted Average Incidence Rates as % Male Class A

| | 2 weeks | 1 month |
|--------|-------------|-------------|
| male B | 150% (156%) | 175% (156%) |
| male C | 238% (243%) | 379% (320%) |
| male D | 237% (273%) | 438% (379%) |
| | | |

Weighted Average Incidence Rates as % Female Class A

| | 2 weeks | 1 month |
|----------|-------------|-------------|
| female B | 154% (138%) | 136% (134%) |
| female C | 141% (164%) | 189% (157%) |
| female D | 146% (176%) | 142% (174%) |

Amount vs Number of Claims

Preliminary results for continuing companies only

Ratio of A/E amounts versus A/E number for Incidence of Claim

| Occ Class | MALE | FEMALE |
|-----------|------|--------|
| A | 108% | 108% |
| В | 104% | 104% |
| С | 109% | 112% |
| D | 113% | 117% |

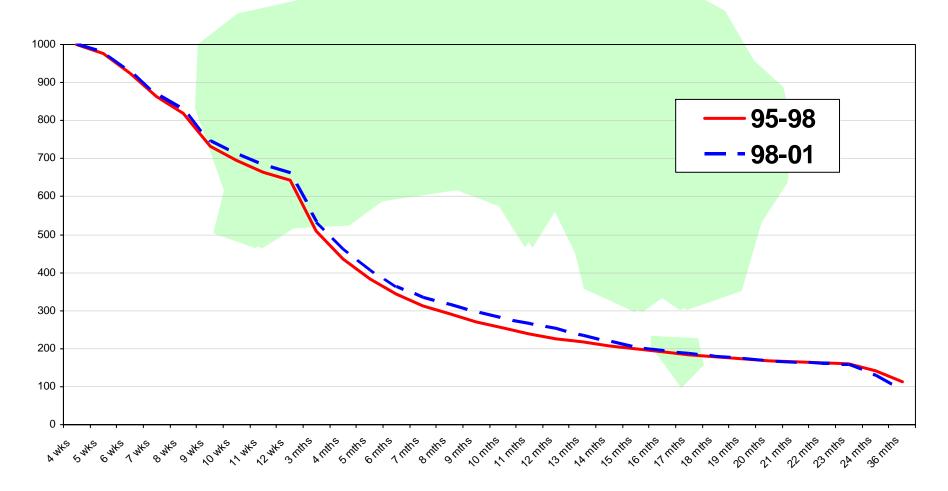
Termination Rates

Preliminary results for continuing companies only

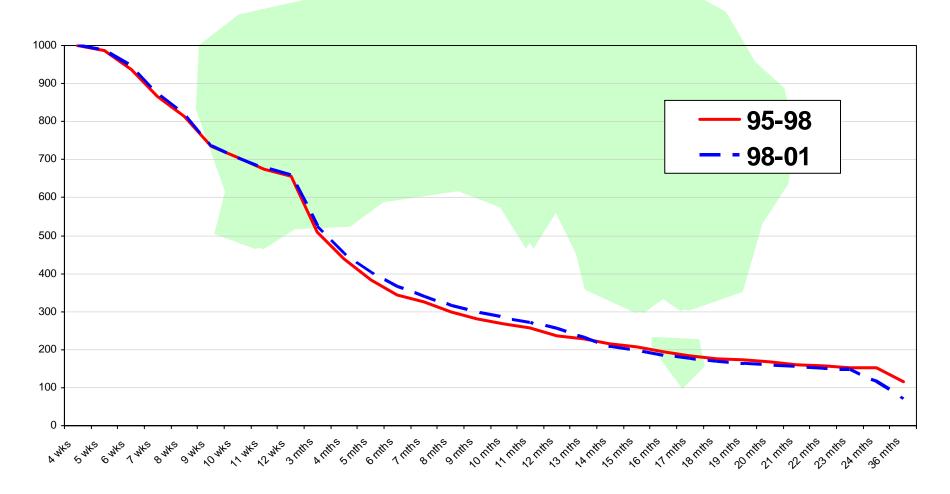
Ratio of A/E Number of Terminations

| Occ Class | MALE | | FEMALE | |
|-----------|-------|-------|--------|-------|
| | 95-98 | 98-01 | 95-98 | 98-01 |
| А | 81% | 81% | 77% | 80% |
| В | 73% | 77% | 72% | 74% |
| С | 84% | 88% | 77% | 77% |
| D | 88% | 84% | 72% | 64% |

Australia – Latest Experience Termination Rates – Male: Occ A: 1 mth deferment



Termination Rates – Female: Occ A: 1 mth deferment



Termination Rates

Preliminary results for continuing companies only

Actual Termination Rates of Claim by duration of claim

| | | 95-98 | | 98-01 | | | Ratio |
|------------------|-------|--------|-------|--------|----|-------|--------|
| Termination Rate | Male | Female | Male | Female | N | /lale | Female |
| | | | | | | | |
| Mths 1 to 3 | 0.491 | 0.490 | 0.468 | 0.475 | S | 95% | 97% |
| Mths 4 to 6 | 0.326 | 0.327 | 0.318 | 0.307 | Ç | 7% | 94% |
| Mths 7 to 12 | 0.341 | 0.315 | 0.303 | 0.299 | 8 | 39% | 95% |
| Mths 13 to 24 | 0.372 | 0.353 | 0.494 | 0.549 | 13 | 33% | 155% |
| Mths 25 to 36 | 0.197 | 0.243 | 0.313 | 0.383 | 15 | 8% | 157% |

Amount vs Number of Terminations

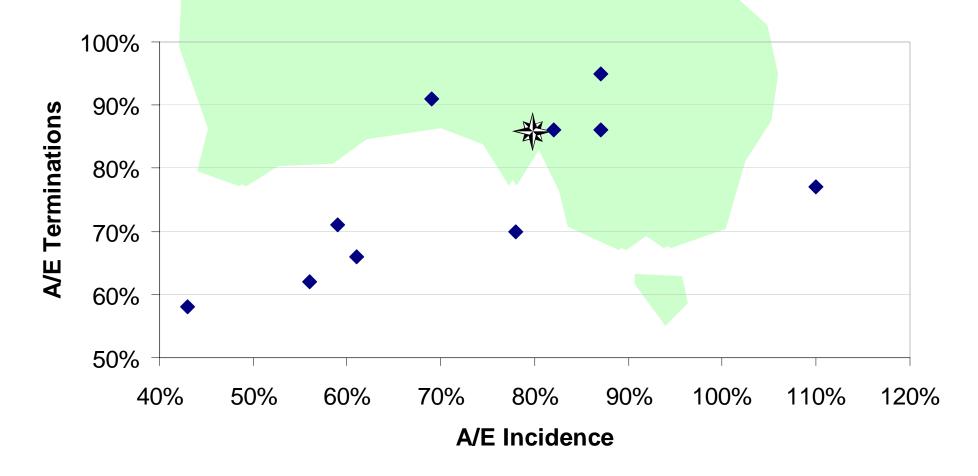
Preliminary results for continuing companies only

Ratio of A/E amounts versus A/E number for Termination Rates of Claim

| Occ Class | MALE | FEMALE |
|-----------|------|--------|
| A | 96% | 98% |
| В | 95% | 95% |
| С | 95% | 95% |
| D | 93% | 97% |

Variation in Experience by Company

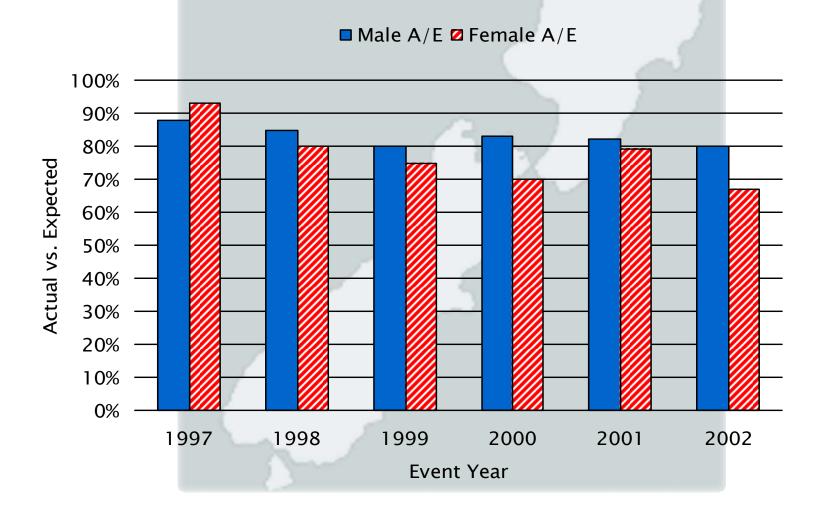
Preliminary results



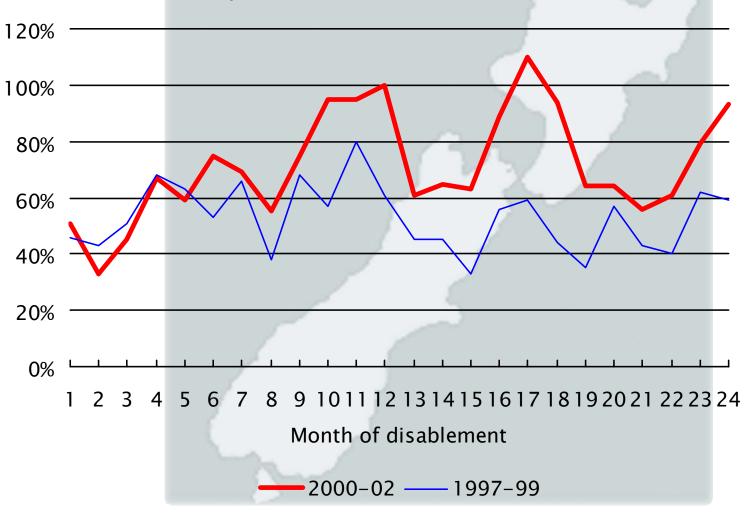
Summary for Australia

- Experience has improved significantly
 - Driven by lower incidence experience (although there are concerns about the quality of some of the data)
- Termination rates during first year of claim continue to deteriorate, however, this is being compensated by better termination rates at later durations
- Incidence and termination rates by amounts are worse than by number (total claims cost by amounts about 15% higher than by number), need to be careful in setting pricing and reserving assumptions – especially for reinsurers on a surplus basis

Incidence Rate Experience



Termination Rate Experience



Claim Duration Experience

Ratio (%) of actual to expected claim length by deferment period and investigation period

| Deferment Period | 1997-99 | 2000-02 |
|------------------|---------|---------|
| 30-days | 169 | 146 |
| 90-days | 146 | 132 |

Ratio (%) of actual to expected claim length by occupation class and investigation period

| Occupation Class | 1997-99 | 2000-02 |
|------------------|---------|---------|
| White-collar | 168 | 141 |
| Blue-collar | 154 | 140 |

- Important feature of NZ Experience is the interaction with the government accident compensation scheme (ACC)
- ACC provides benefit up to 80% of taxable salary (with maximum dollar cap) in event a person is injured and unable to work
- Covers most forms of accidental injury (work and outside work) and can sometimes overlap with what would normally be considered a sickness

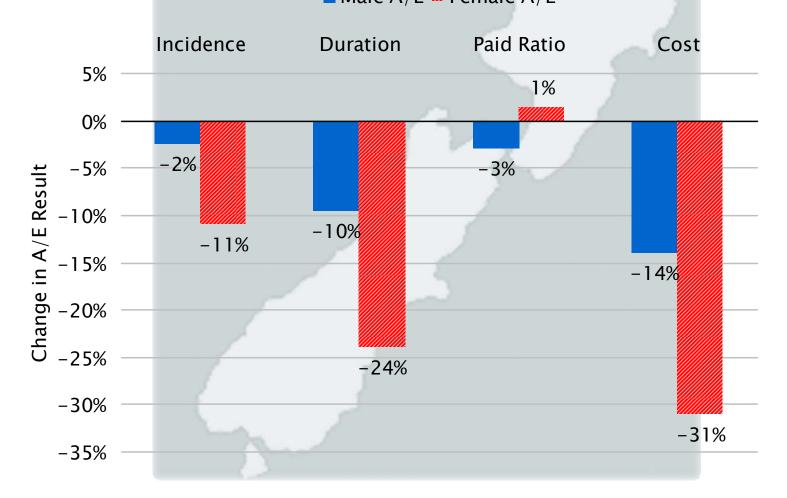
Paid ratio (%) by cause of claim and investigation period

| Cause of Claim | 1997-99 | 2000-02 |
|----------------|---------|---------|
| Accident | 52 | 43 |
| Sickness | 79 | 81 |
| All | 72 | 70 |

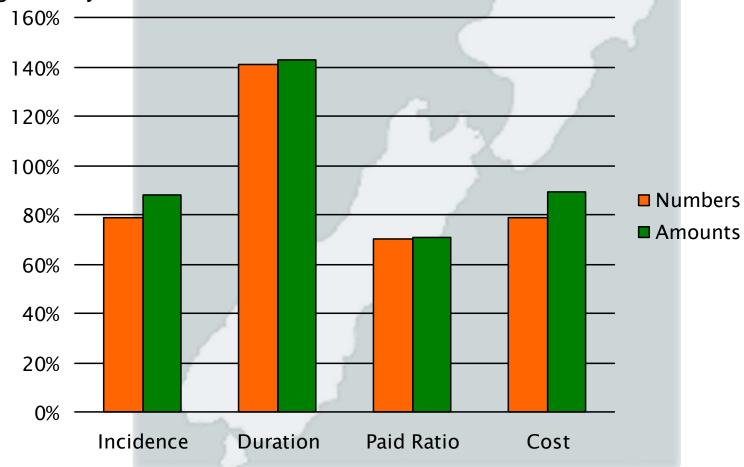
Paid ratio by claim cause and occupation class in 2000-02

| Occupation Class | Accident | Sickness | Total |
|------------------|----------|----------|-------|
| Α | 41 | 83 | 76 |
| В | 43 | 82 | 74 |
| С | 57 | 76 | 71 |
| D | 43 | 80 | 63 |
| E | 44 | 77 | 60 |

Contribution of each component to total change in claim cost from 1997-99 to 2000-02
■ Male A/E
▼ Female A/E



Comparison of ratios (%) of actual to expected results in 2000-02 weighted by numbers and amounts



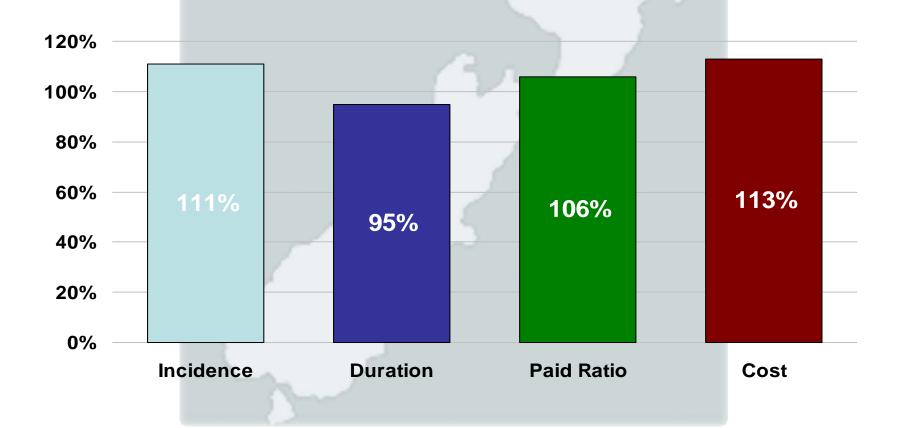
Warning: smoking hazardous to your health Ratio (%) of actual to expected incidence for smokers over non-smokers in 2000-02

| Occupation Class | Male | Female | All |
|------------------|----------|----------|----------|
| White-collar | 142 (13) | 135 (16) | 138 (10) |
| Blue-collar | 123 (10) | 117 (31) | 122 (10) |
| All Occupation | 122 (7) | 129 (14) | 124 (6) |
| Classes | | | |

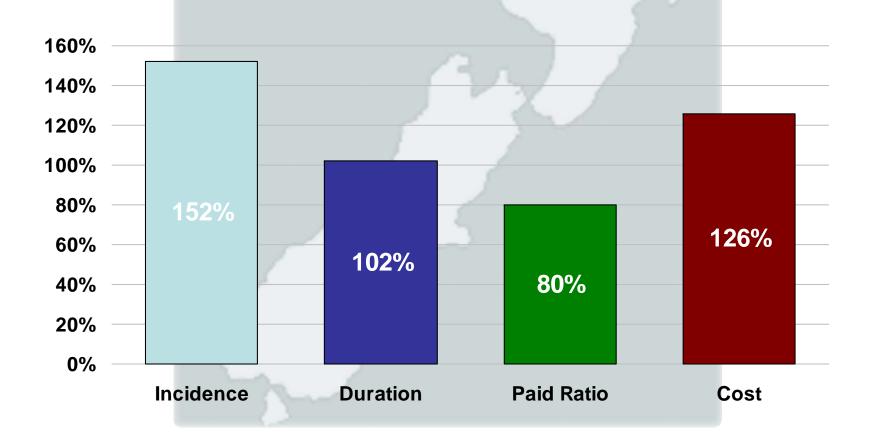
Ratio (%) of actual to expected claim cost for smokers over nonsmokers in 2000-02

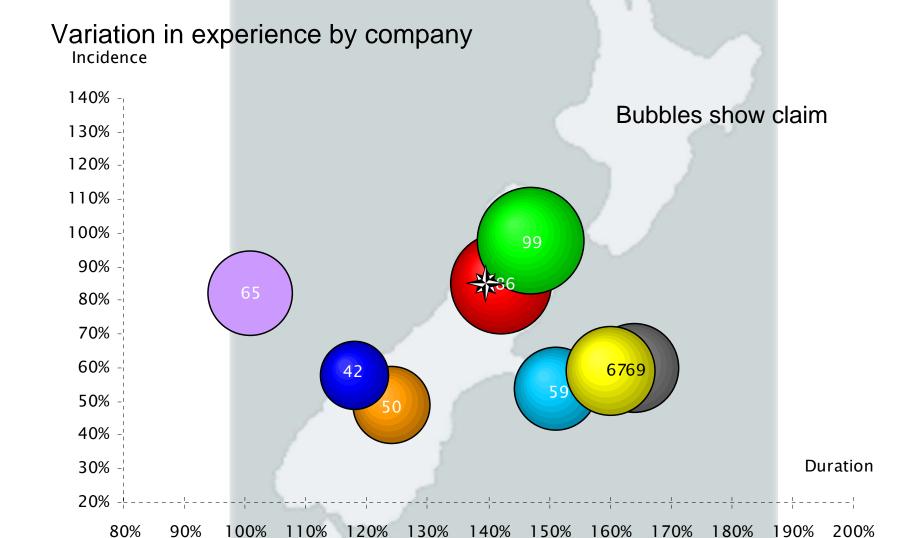
| Occupation Class | Male | Female | All |
|------------------|------|--------|-----|
| White-collar | 143 | 123 | 134 |
| Blue-collar | 132 | 123 | 131 |
| All Occupation | 124 | 121 | 123 |
| Classes | | | |

Agreed Value benefits versus Indemnity



Self-employed versus Employed





Summary for New Zealand

- Experience has improved
 - Driven by increased termination rates
- Difference between self-employed and employee can be an important rating variable – is just as important as smoker status
- Incidence and termination rates by amounts are worse than by number, need to be careful in setting pricing and reserving assumptions – especially for reinsurers on a surplus basis
- Experience varies greatly by company