

# Terminal illness – pricing considerations

**Presenters**    **Brad Louis**  
                         **Steve Varney**

Munich RE 

## AGENDA

---

1. Current Status
2. Estimating TI Cost
3. Data and Critical Assumptions
4. Estimated Costs
5. Conclusions

# 1: CURRENT STATUS

---

## Terminal Illness Under SIS

Old SIS likely to die ..... 12 months

New SIS likely to die ..... 24 months

### CURRENT PRACTICE

Retail in Super

likely to ...12 months

Retail outside Super

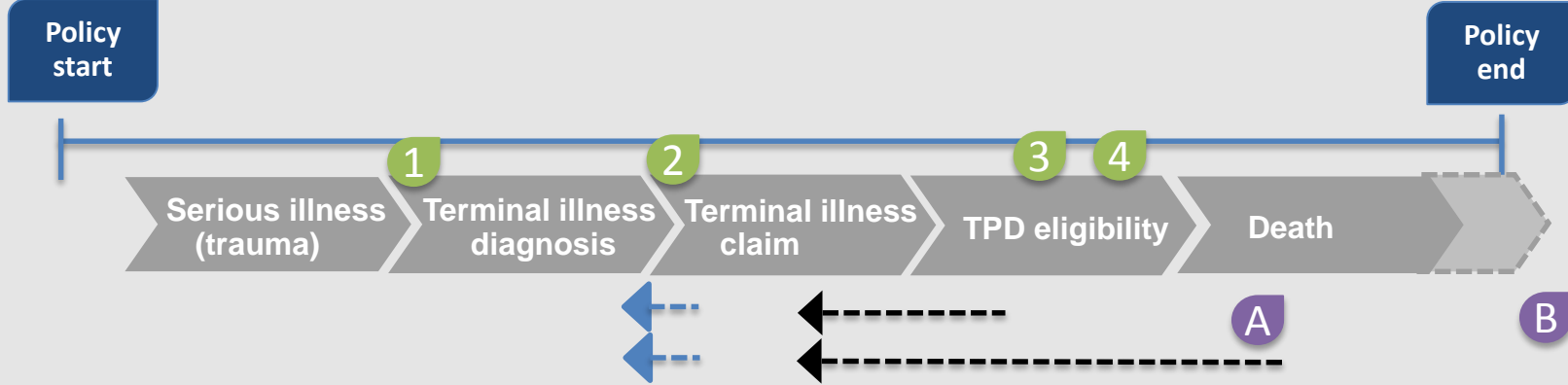
likely to / will...12 months

Group Super

will / likely to ....12 months

## 2: ESTIMATING TI COST

---



### COST

Interest from early payment

A Higher / lower SI

No premium from TI date

B Full SI if death after policy end

Full SI if insurer changes between TI and death

### DEFINITION CHANGE

More TI claims

Earlier TI claims

### KEY ASSUMPTIONS

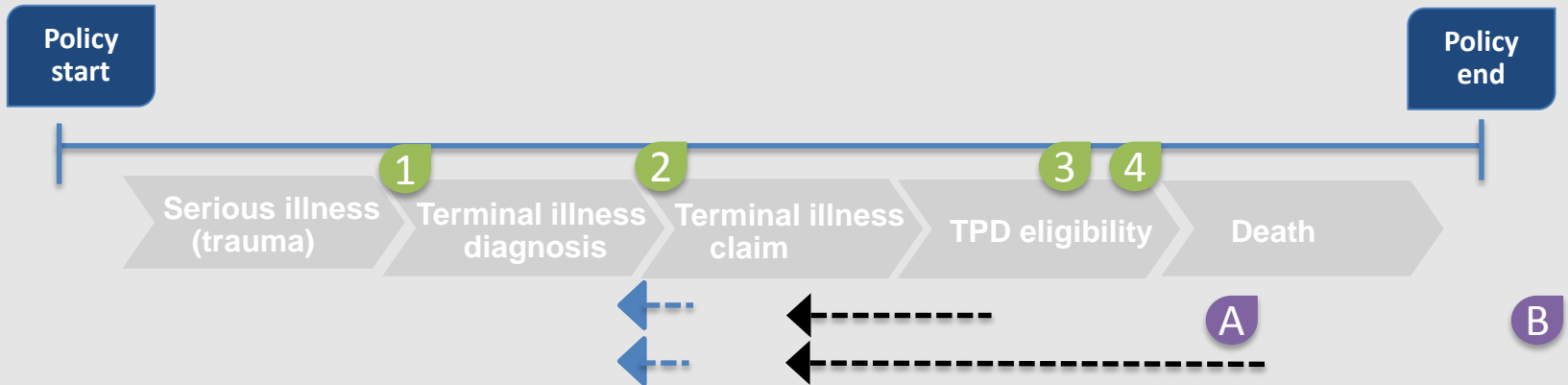
1 Rate of terminal illness

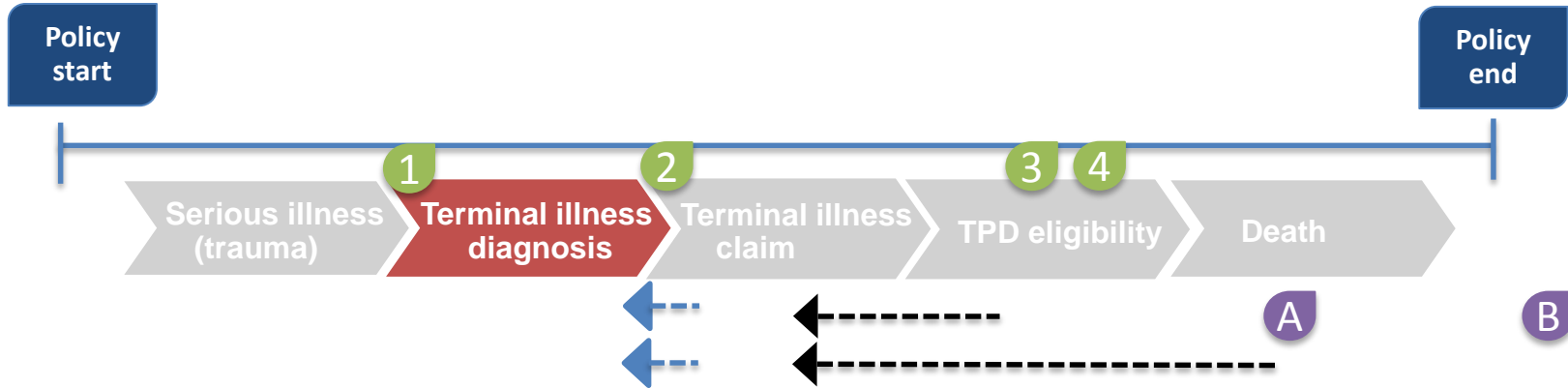
2 Claim Rate once eligible

3 Mortality post TI claim

4 Lapse rate

# 3. DATA AND CRITICAL ASSUMPTIONS



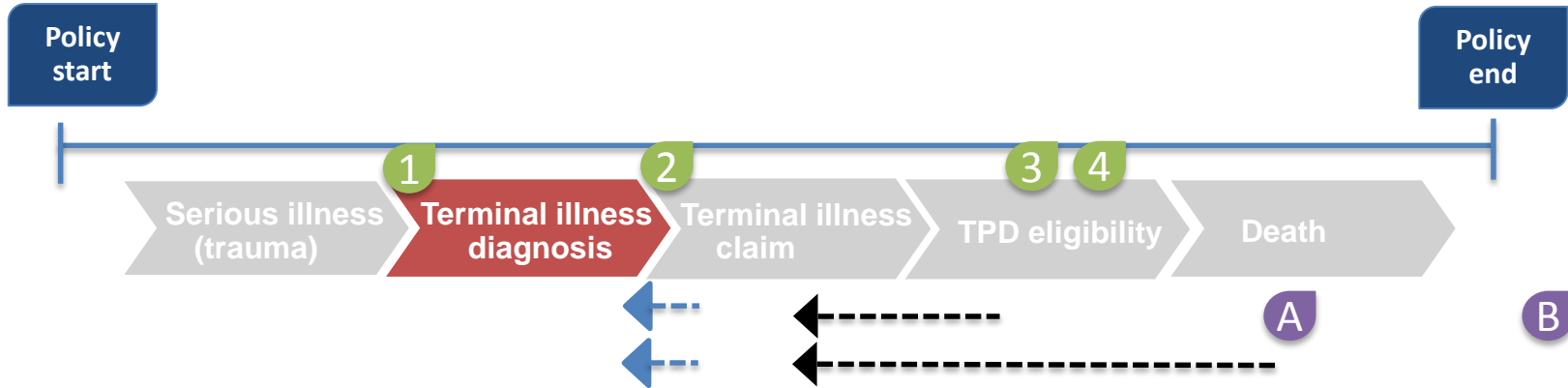


1

## Population rate of terminal illness

- MRA Australian research shows over 90% of TI claims are from cancer
- Australian Cancer Survivor Statistics: Survival rates differ by cancer, extent, age, gender, smoker status (x), occupation (x)



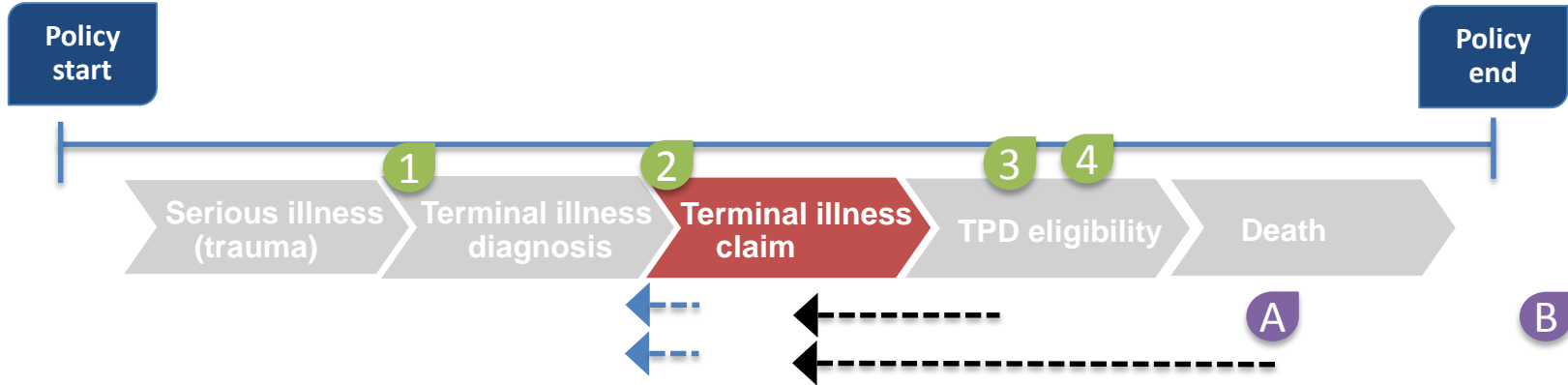


1

## Population rate of terminal illness

Used CMO advice on TI certification process and disease progress statistics:

- Certainty factors applied to each cancer type and extent
- Gives terminal illness population incidence rates by age group and gender, grossed up for non cancer claims



## 2 Claim rate

### Lower than population

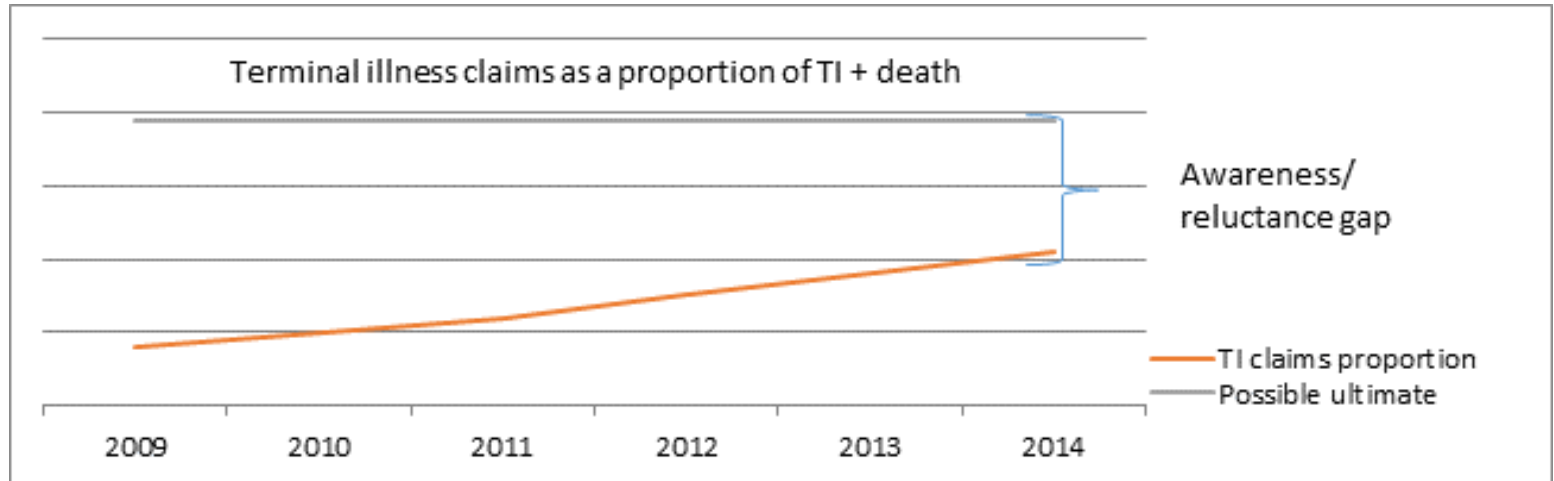
- dying before claim
- lack of awareness
- underwriting effects
- choosing not to claim

### Factors to consider

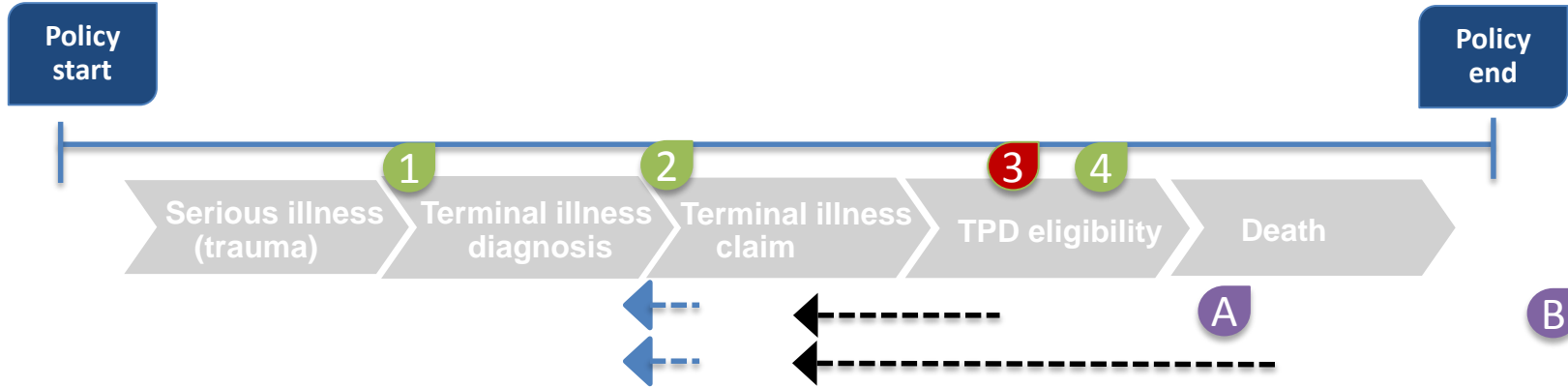
- Occupation (group), smoking status (retail)
- Terminal Illness/(death + TI) claims

Results were calibrated against our Group portfolio actual experience

## Claim rate



Rate of TI is growing.  
What is the ceiling?



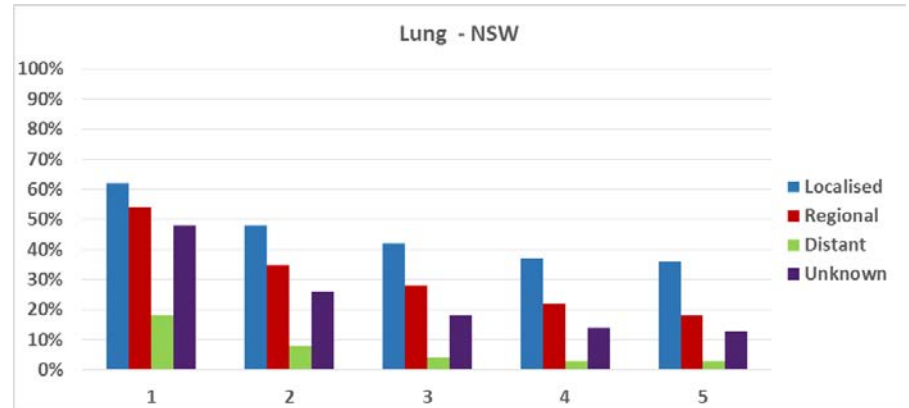
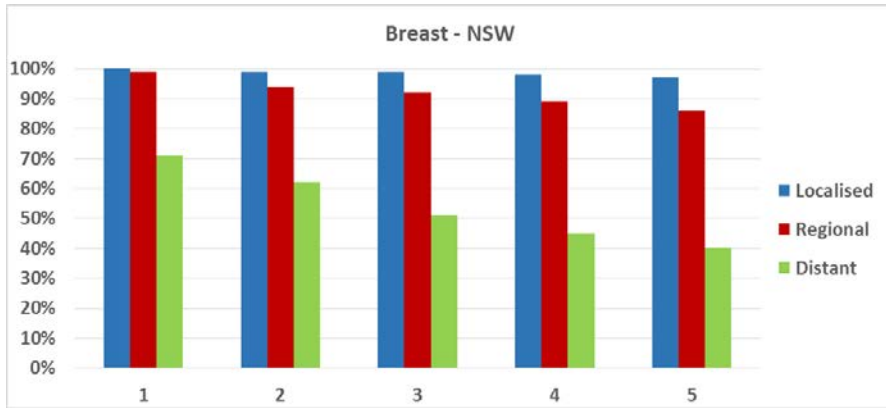
3

## Mortality post TI claim

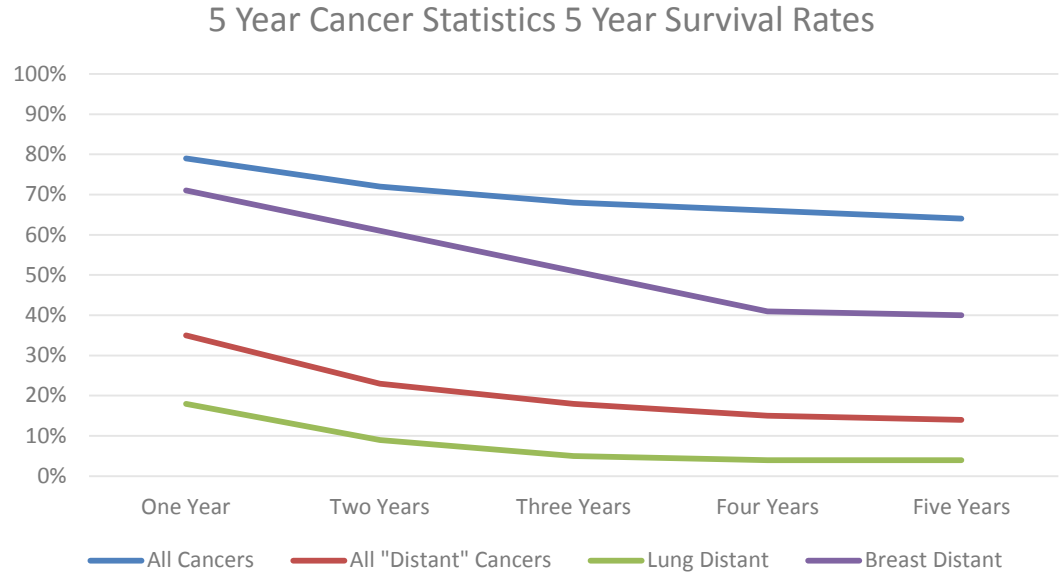
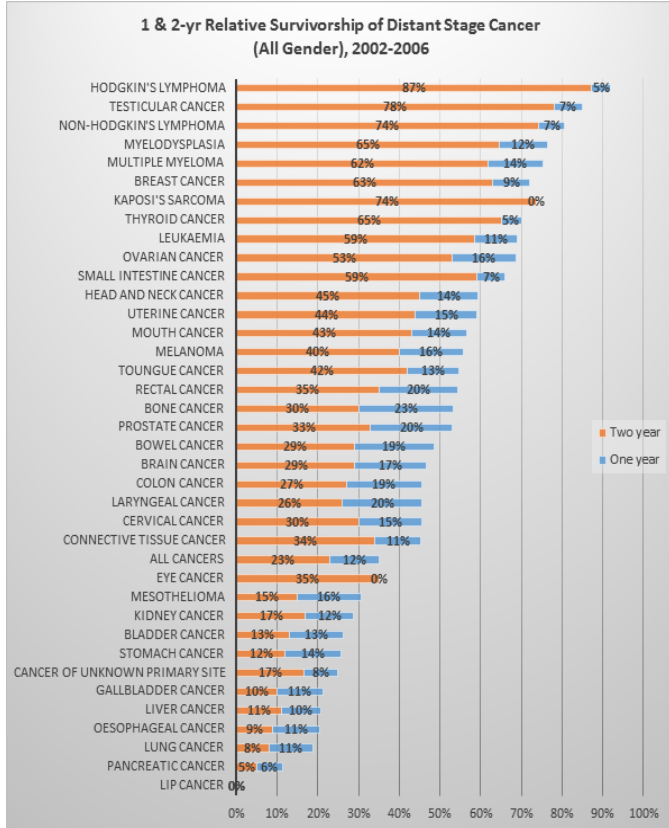
- Mortality in line with distant stage cancer of their particular cancer type
- Mortality improvement allowances
- Survival summed across all terminal illnesses
- Insurance basis broadly taken as equal to population basis
- Calibration against some Australian group plans and overseas data.

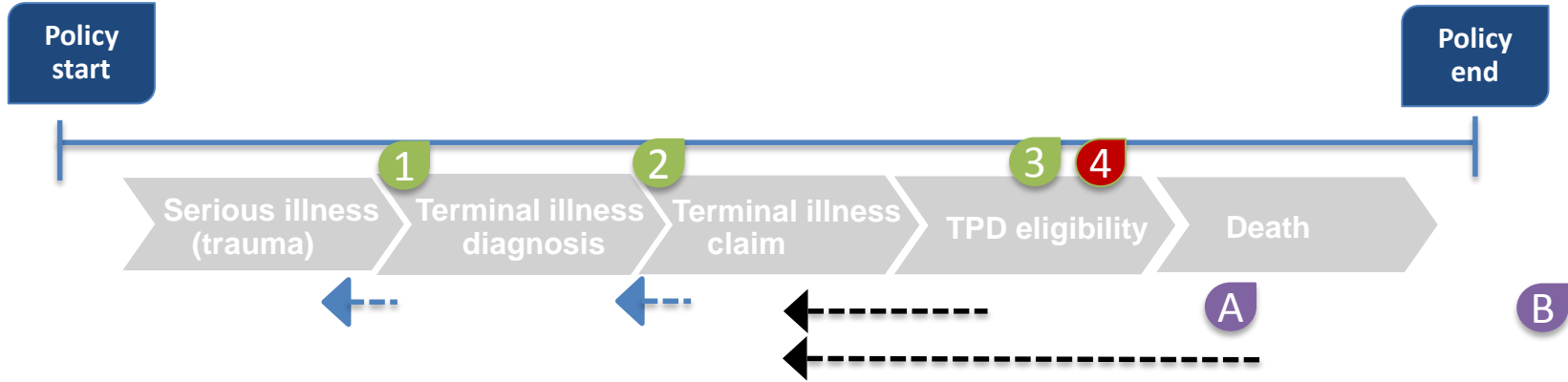
## Mortality Post TI Claim

Post mortality modelled using specific cancer type statistics



# Mortality Post TI Claim





## 4 Lapse Rates and Other Assumptions

- Lapse rates – what would occur if no TI claim?
- Portfolio lapse and/or reaching cover cease age
- Post 5 year mortality
- Underlying portfolio mortality if no TI benefit existed
- TPD experience post a TI claim

## 4. COSTS

---

- Group
- Retail





# Terminal illness benefit costs

## Group insurance – Flat Sum Insured

Basis	Duration	Portfolio cost (Death risk loading)
'will die'	12 months	1 - 3% <sup>1</sup>
'will die'	24 months	2 - 4%
'likely to die'	24 months	3 - 5%

1: Base Case

# Terminal illness benefit costs

## Group insurance: Sensitivities

TPD present



Unit premium cover scale



Older than average group



Increased awareness



Lapse rate (5% increase  
in termination)



Claims surge



Cover  
cease

A special form of lapse.

# Terminal illness benefit costs

## Retail insurance

Portfolio costs of change are lower for retail due to:

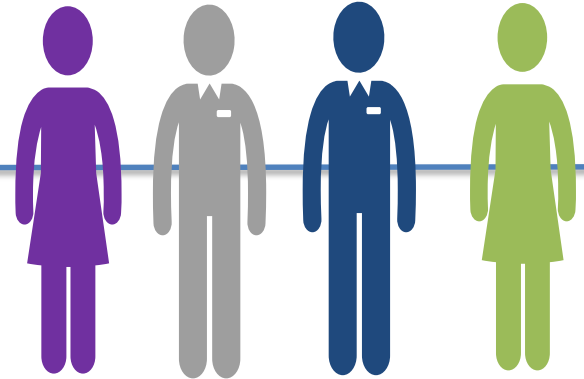
- “likely to die” starting point,
- higher cover cease ages,
- lower lapses,
- indexed sum insured
- trauma

Basis	Duration	Portfolio cost (Death risk loading)
‘likely to die’	12 months	0.5 – 2% <sup>1</sup>
‘likely to die’	24 months	1 - 3%

1: Base Case

## 5: IN CONCLUSION

---



## Summary of Costs



Cost may be in the range 0.5% to 10%+.



One size doesn't fit all



Variations by Sum Insured scales, current definition, age, gender, smoking ratio, lapse rates, occupation,




Human Behaviour will impact costs

## ISSUES – IS 24 MONTHS TI SUSTAINABLE?






---

- 1 Would we be discussing this if it weren't for SIS?
- 2 UK is debating a move to 6 months – does it make sense to move to 24 months?
- 3 Can we accurately assess the likelihood of dying within 24 months?
- 4 What is the impact of requiring medical specialists to take on this responsibility?
- 5 How would we price for increased uncertainty?

## Pricing – what should insurance cover with SIS changes?

	Pay if 100% SIS definition?	Desirable to Pay?	Wording Options?
 <ul style="list-style-type: none"> <li>• Refusing medical treatment</li> <li>• &lt; 24 months to live</li> </ul>	Yes	Yes/No	Despite all possible medical treatment

## Pricing – what should insurance cover with SIS changes?

		Pay if 100% SIS definition?	Desirable to Pay?	Wording Options?
	<ul style="list-style-type: none"> <li>• Refusing medical treatment</li> <li>• &lt; 24 months to live</li> </ul>	Yes	Yes/No	Despite all possible medical treatment
	<ul style="list-style-type: none"> <li>• Had TI</li> <li>• Now in remission</li> <li>• No longer TI</li> </ul>	Yes	Yes/No	Certification period currency
	<ul style="list-style-type: none"> <li>• Advanced cancer, 45% 2yr survival</li> <li>• &lt; 24 months to live</li> </ul>	Yes	Yes/No	“likely to die” pays out, “will die” waits
	<ul style="list-style-type: none"> <li>• Aged 64 and TI</li> <li>• Between 12-24 months to live</li> </ul>	Yes	Yes/No	Stop TI cover 24 months before cover ceases
	<ul style="list-style-type: none"> <li>• Certified TI</li> <li>• Doubt certification</li> </ul>	Yes	Yes/No	Own CMO



Thank you

---

Questions

## SIS Condition of Release for Terminal Illness

- (a) two registered medical practitioners have certified, jointly or separately, that the person suffers from an illness, or has incurred an injury, that is likely to result in the death of the person within a period (the ***certification period***) that ends not more than 24 months after the date of the certification;
- (b) at least one of the registered medical practitioners is a specialist practicing in an area related to the illness or injury suffered by the person;
- (c) for each of the certificates, the certification period has not ended.