

Group Long Term Disability Claims  
Experience Study -  
An Update

GUAA in Philadelphia

June 2, 2009

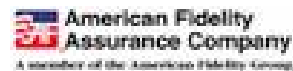
Rick Leavitt, VP Pricing and Consulting Actuary, Smith Group

# [ GLTD Termination Study - Agenda ]

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1. Describe the Study
2. Claim Demographic Trends
3. Termination Trends
4. Early Duration Terminations
5. Impact of Cancer
6. Mortality Improvement
7. Change in Definition
8. Mental & Nervous Limit
9. Elimination Period
10. Composition of Terminations
11. Next Steps

# Participating Companies



Thanks for the participation!

# 97-06 GLTD Termination Study

- 21 participants: 72% of 2007 market share
- Top 15 carriers...except #3, #5 and #8
- 1997 – 2006 claim termination experience
- Over 1 million LTD claims
- From fairly homogeneous products
- 120,000 deaths
- 560,000 recoveries

## How big is that study?

- Term count: CGDT87- 40k  $\Leftrightarrow$  97/06 - 680k
- Claim count: Table95a – 0.25M  $\Leftrightarrow$  97/06 – 1.2M
- Life-Years: Group Life Waiver - 0.7M  $\Leftrightarrow$  97/06 - 2.4M
- Carrier count: 2000 GLTD -10  $\Leftrightarrow$  97/06 – 21

# Controlling for Company's Exposure

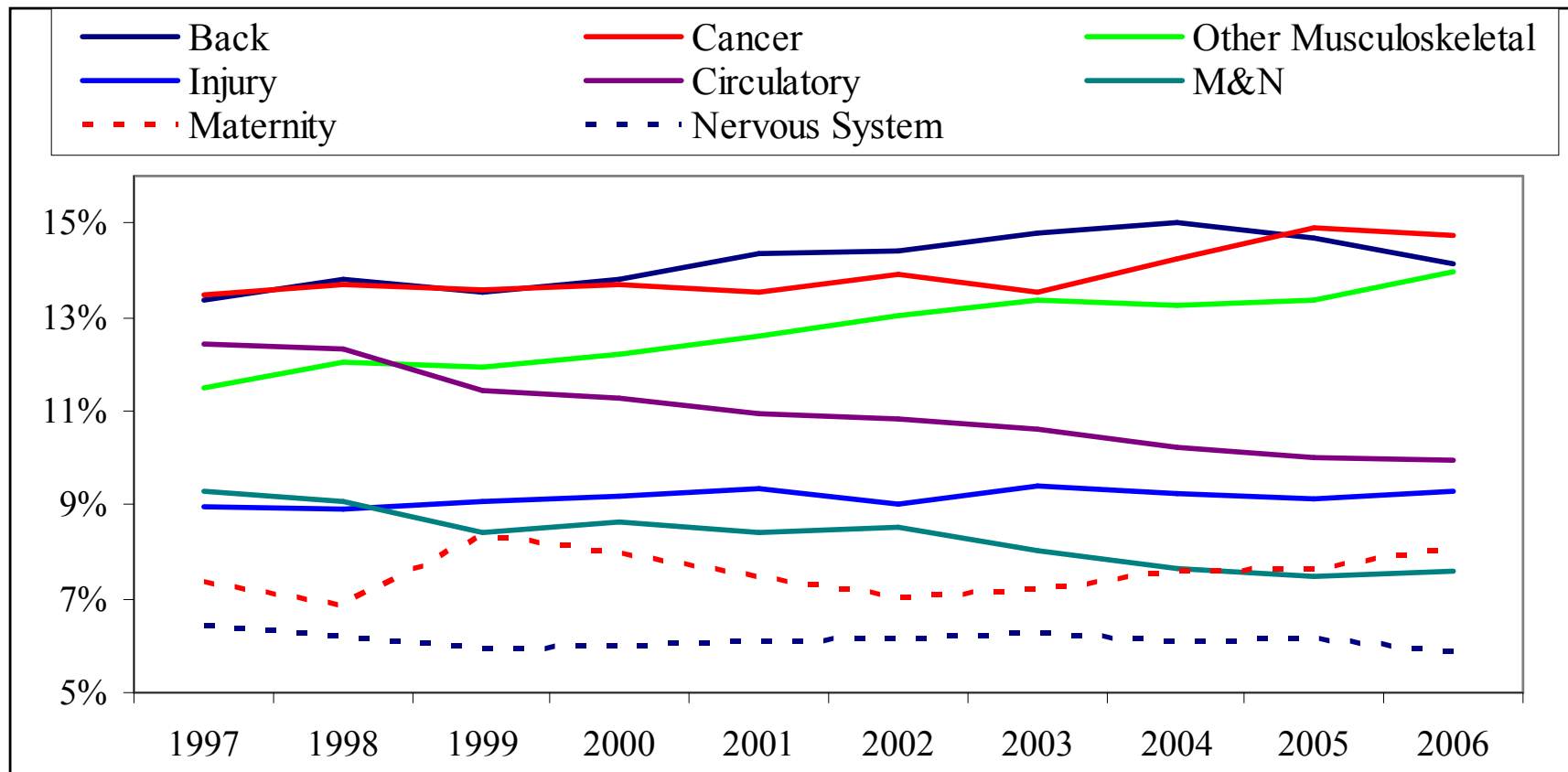
- Top 2 = 50% of exposure
- Top 5 = 75% of exposure
- Table should reflect ...
  - the industry experience?
  - the average company's experience?
- Something in between:
  - Top 5: each one set to 12%
  - Remaining ones: 40%

# Data Scrubbing and Company Variance

- Company data reviewed by data buddies
- Intercompany variance comparison
  - Errors caught & resubmitted
  - Limited trimming of exposure
  - Remapping of “Recovery” to max-out
  - Remapping of “Recovery” to limit

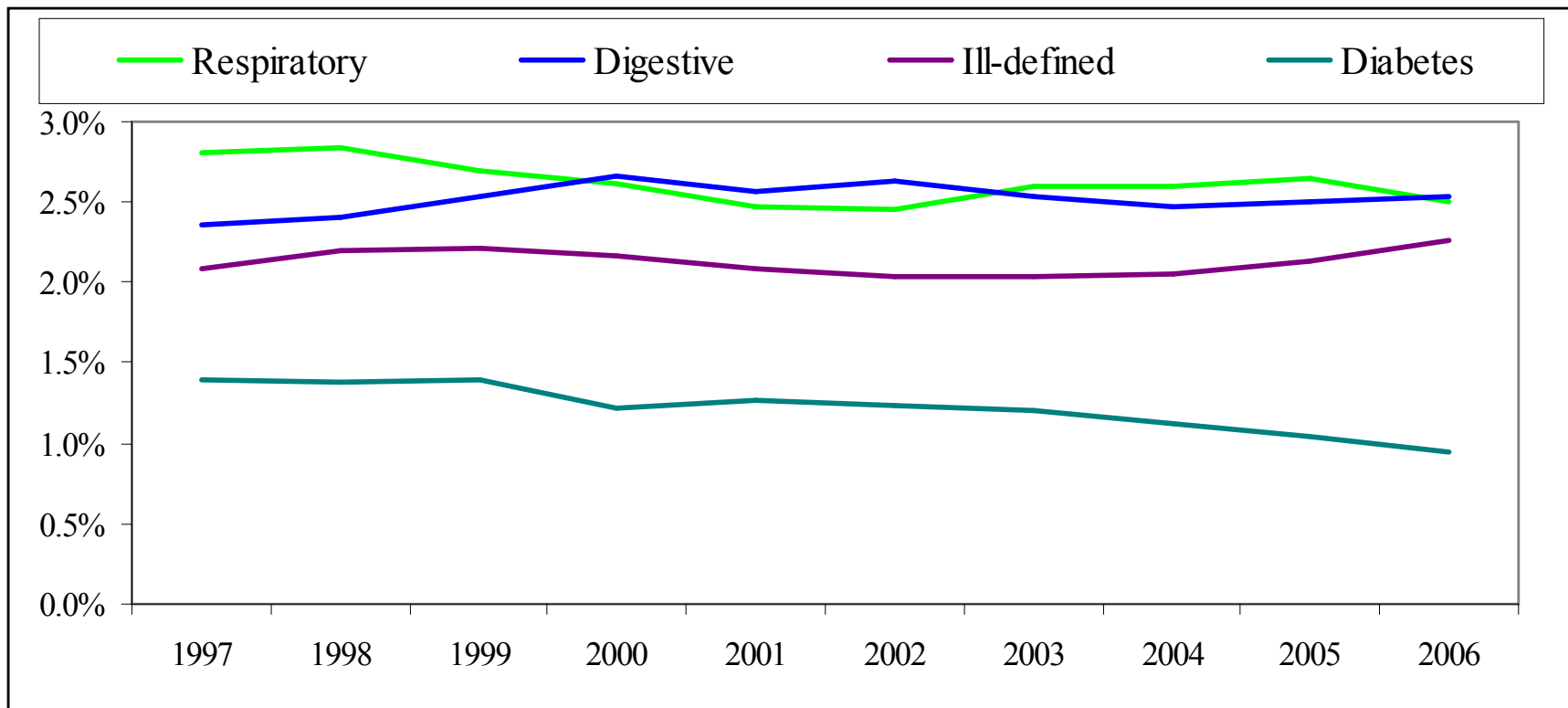
# Claim Demographic Trends

## Percent of New Claims by Diagnosis



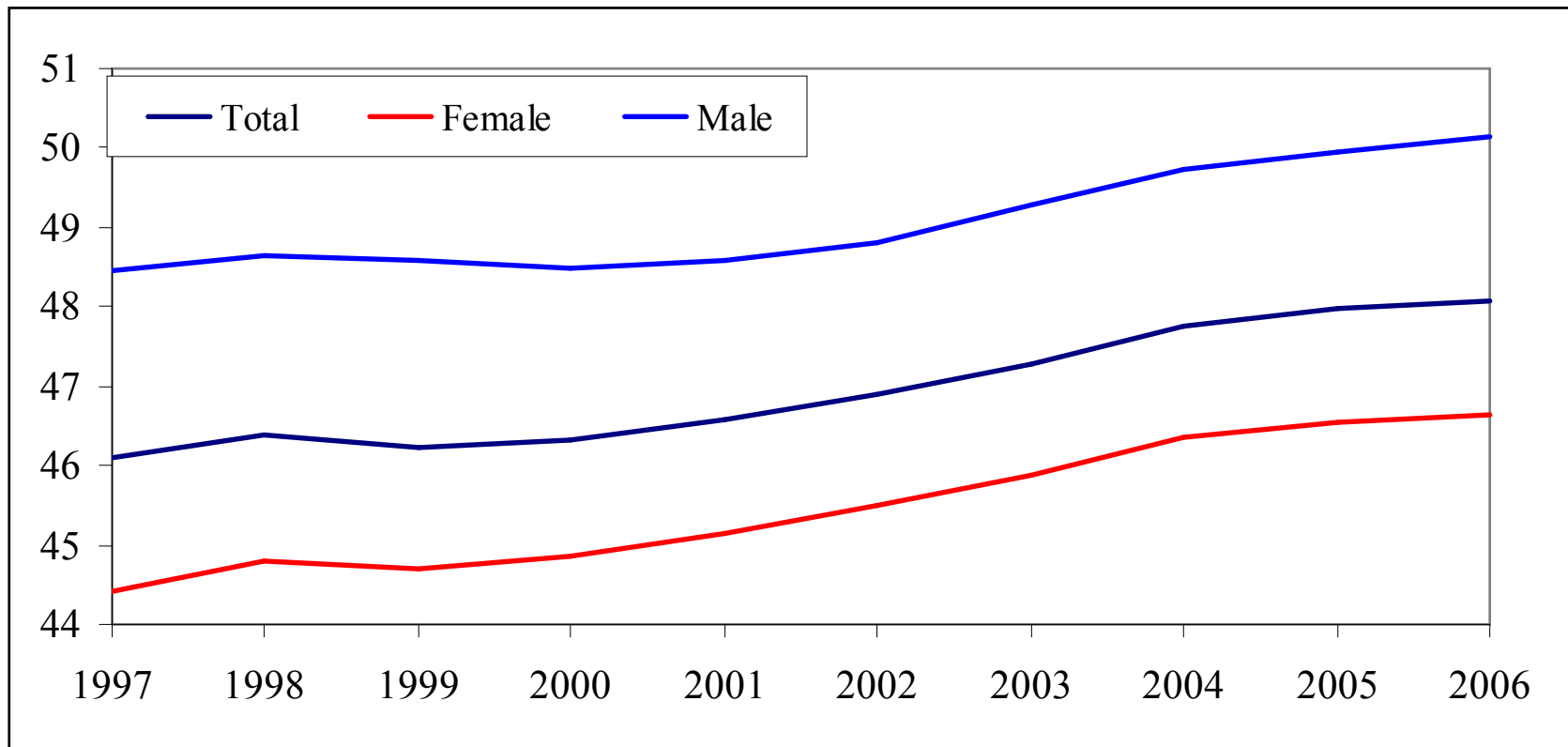
# Claim Demographic Trends

## Percent of New Claims by Diagnosis



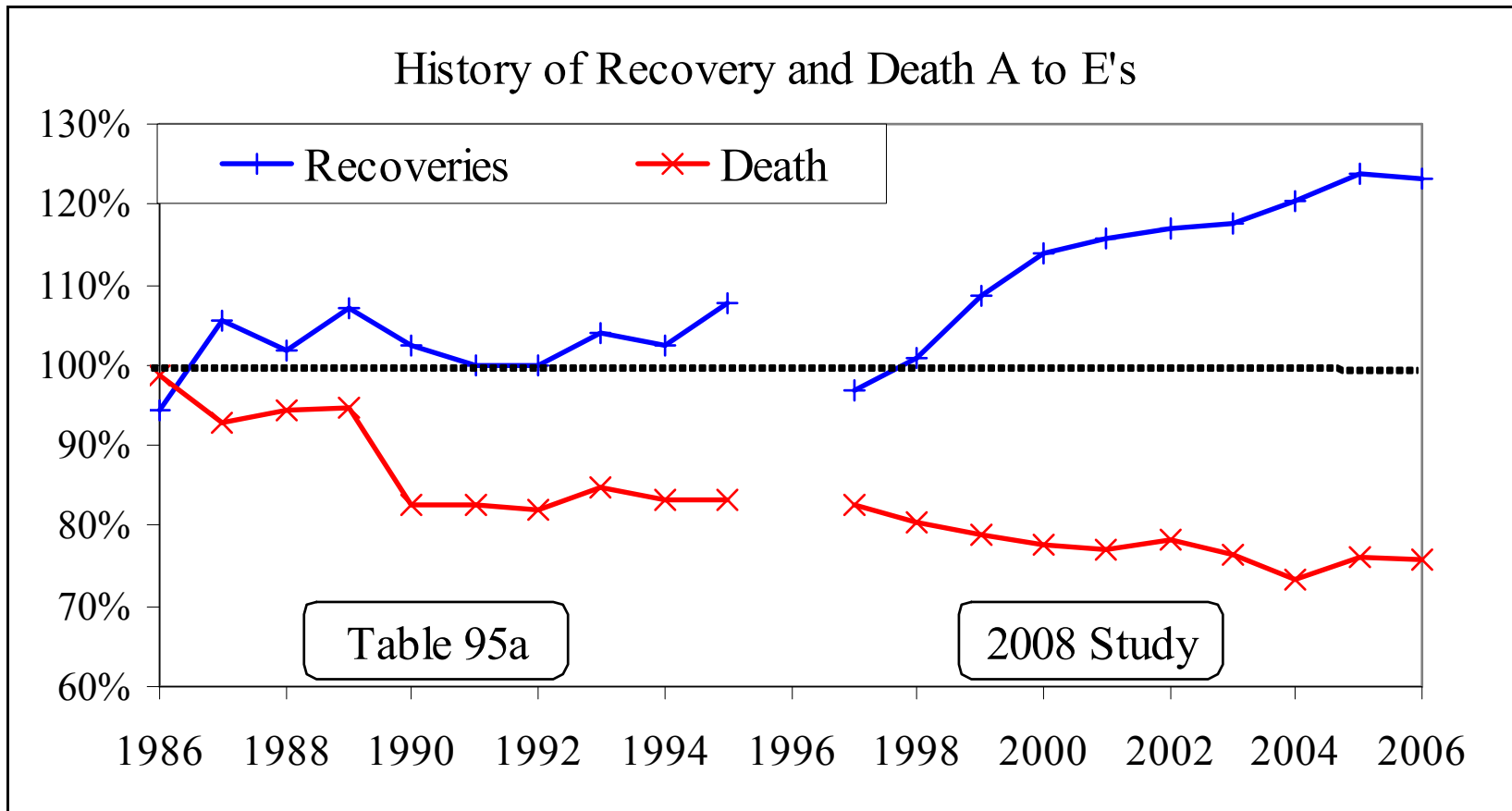
# Claim Demographic Trends

## Average Age by Gender

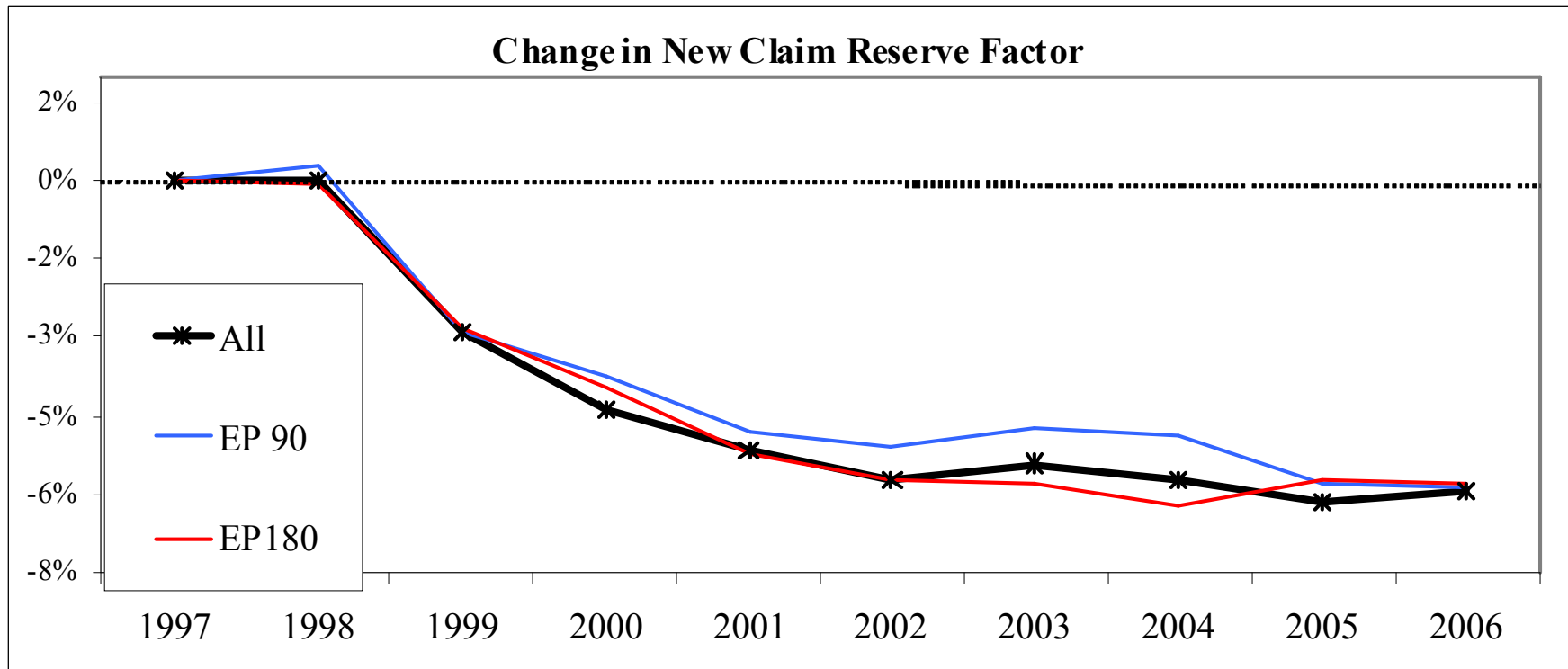


The average age of a new claimant has increased by 2 years since 1997

# Termination Trends



# Termination Trends

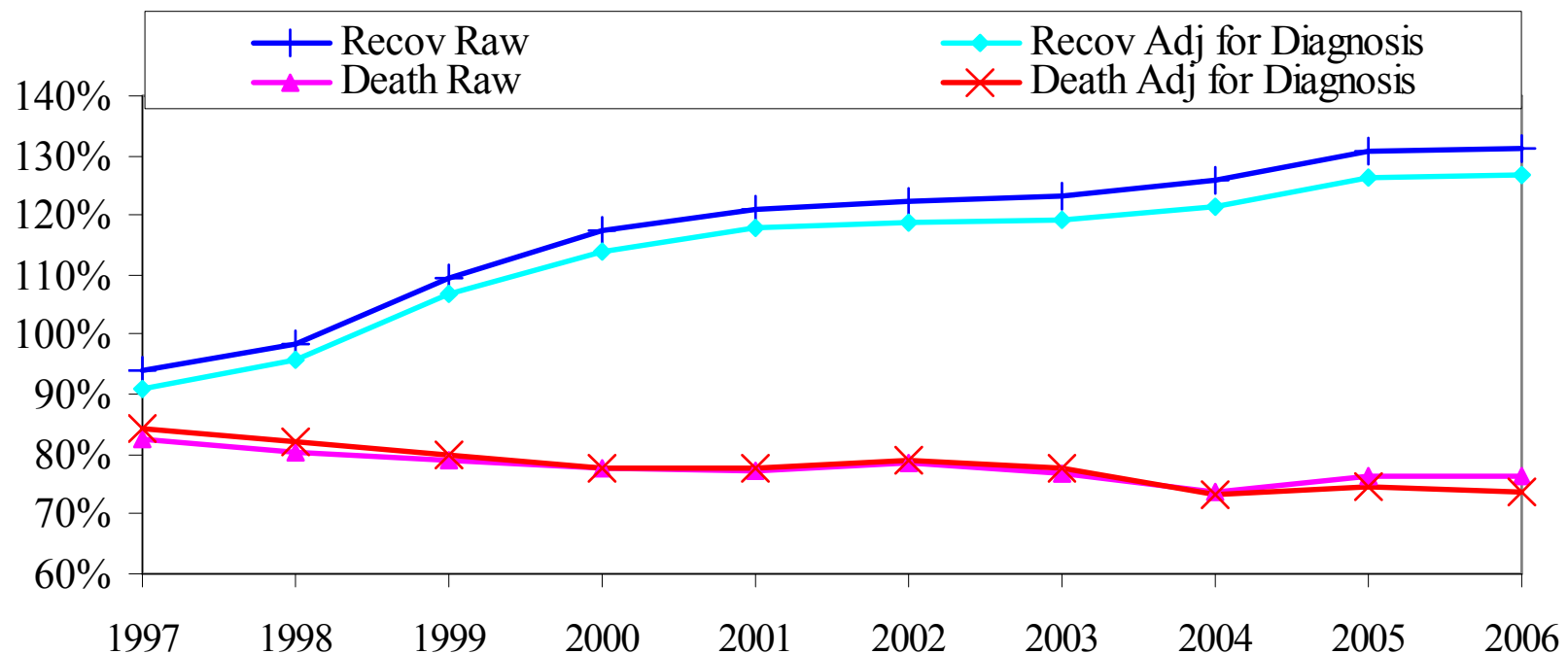


Estimated cost per new claim has dropped by close to 6% since 1997

# Termination Trends

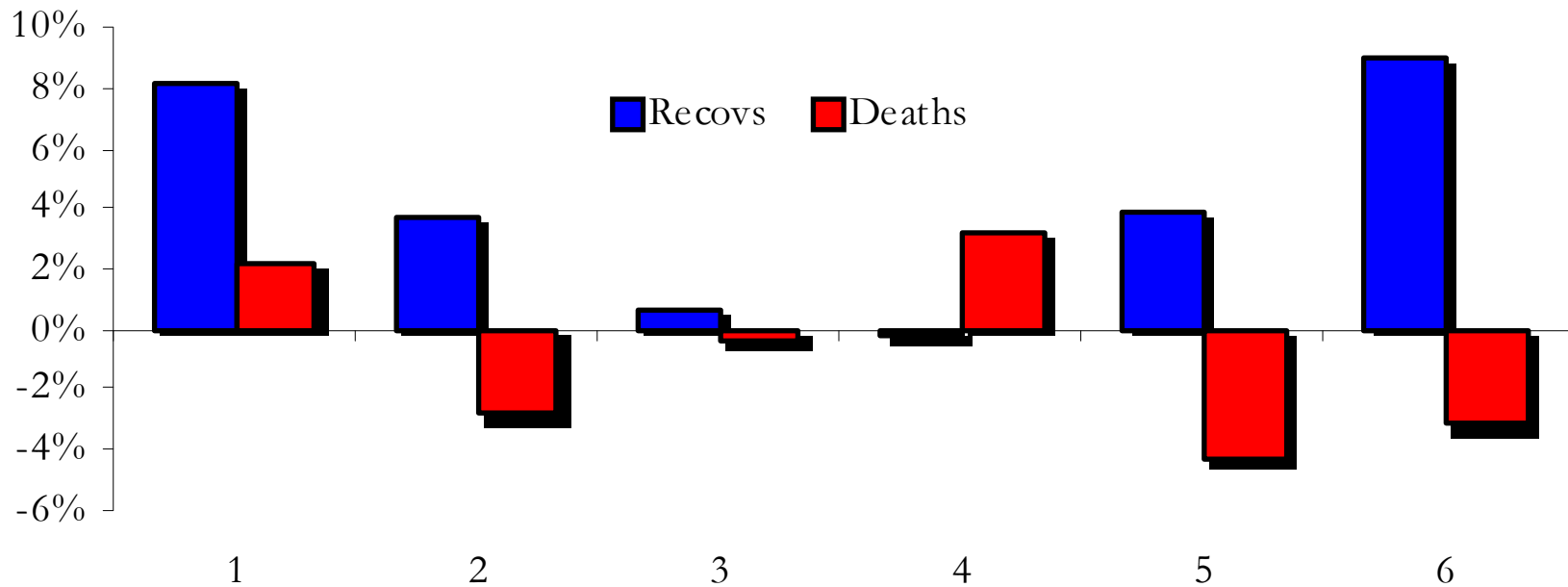
Can the shift in Terminations be explained by a shift in Diagnosis?

### Termination Actual to Expected Ratios



# Termination Trends

Pct Change in Term Rates (97-00 to 03-06)



1: Back, Injury, Musculo

2: Digestive, Other

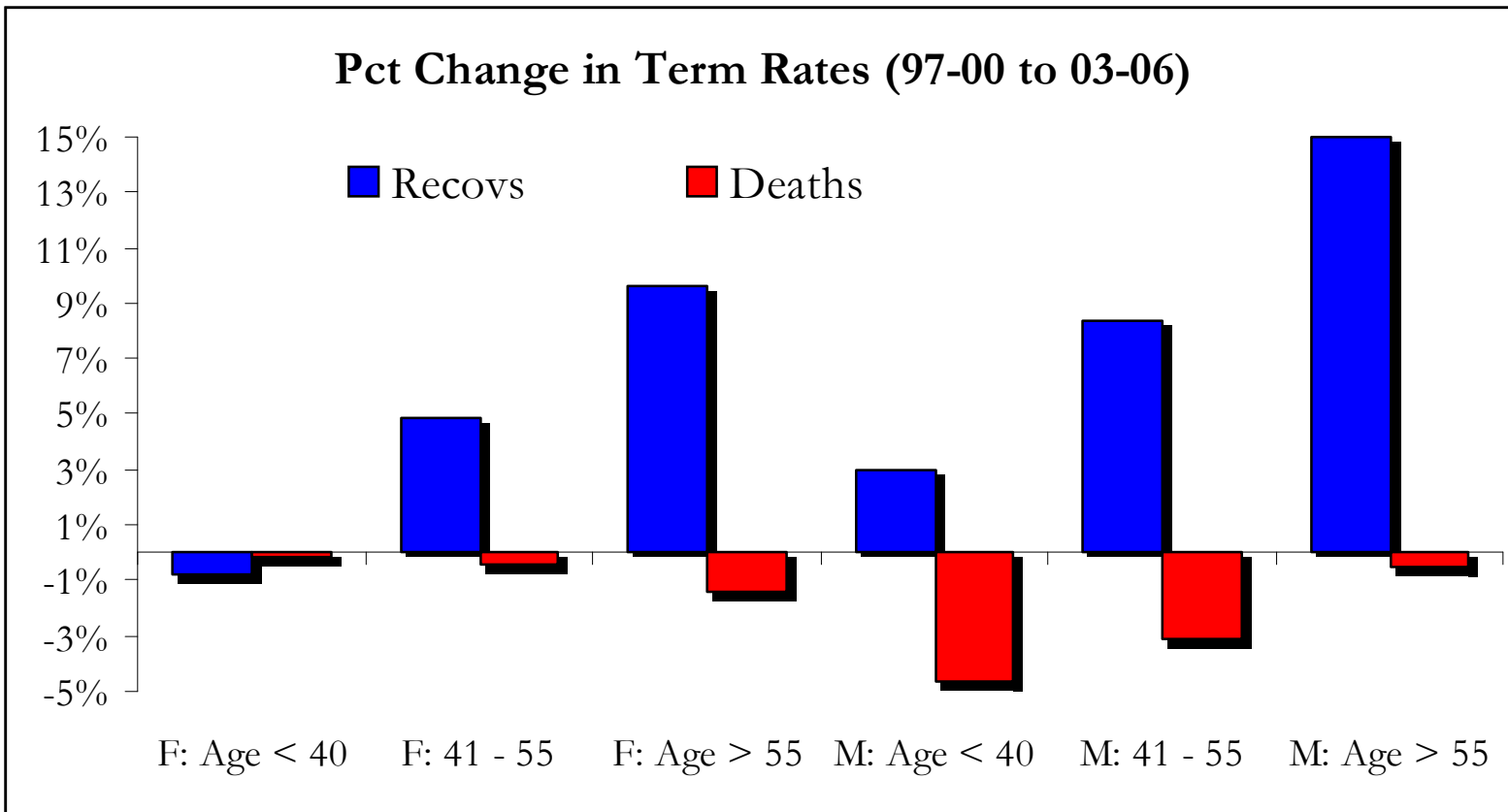
3: Mental & Nervous

4: Circulatory/Phys Nervous

5: Cancer

6: Respiratory/Diabetes

# Termination Trends

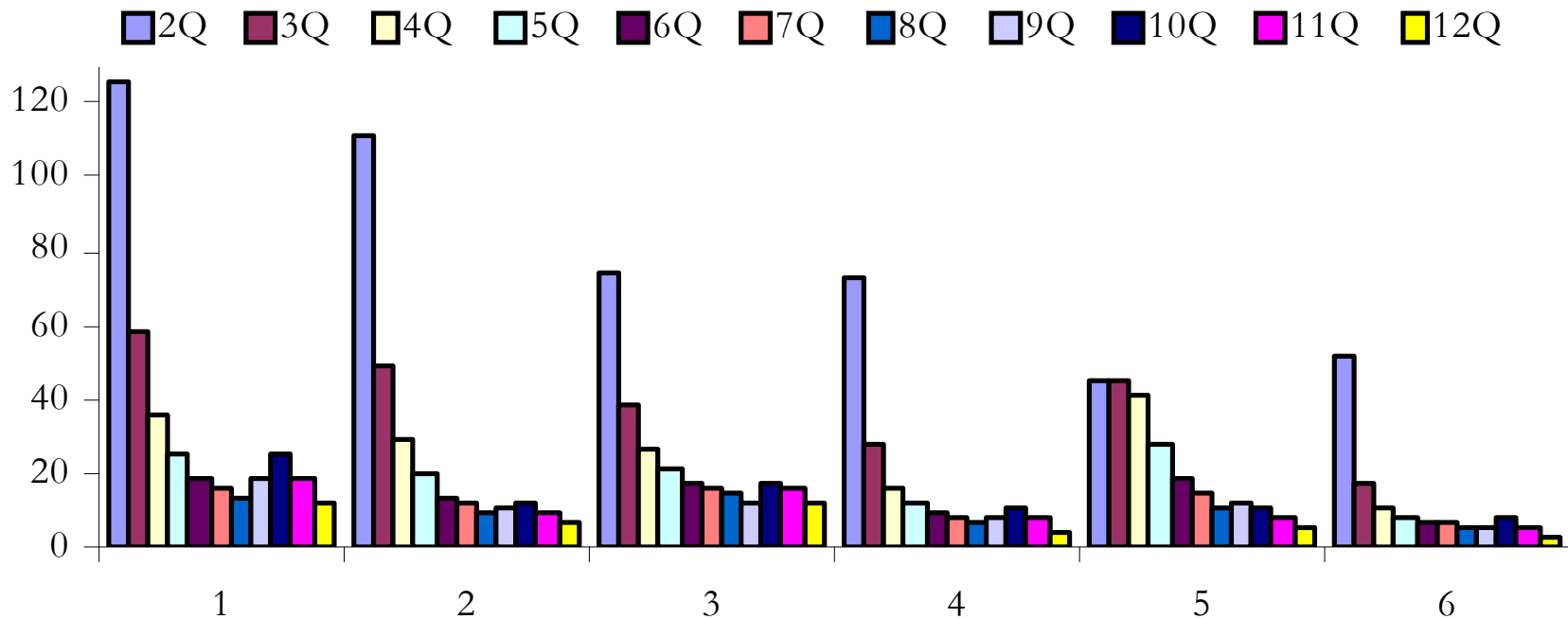


Recovery Improvement increases with age:

Death Rate Improvement hits males more than females

# Early Duration Terminations

Early Duration **Recoveries** per 1000 months exposed



1: Back, Injury, Musculo

2: Digestive, Other

3: Mental & Nervous

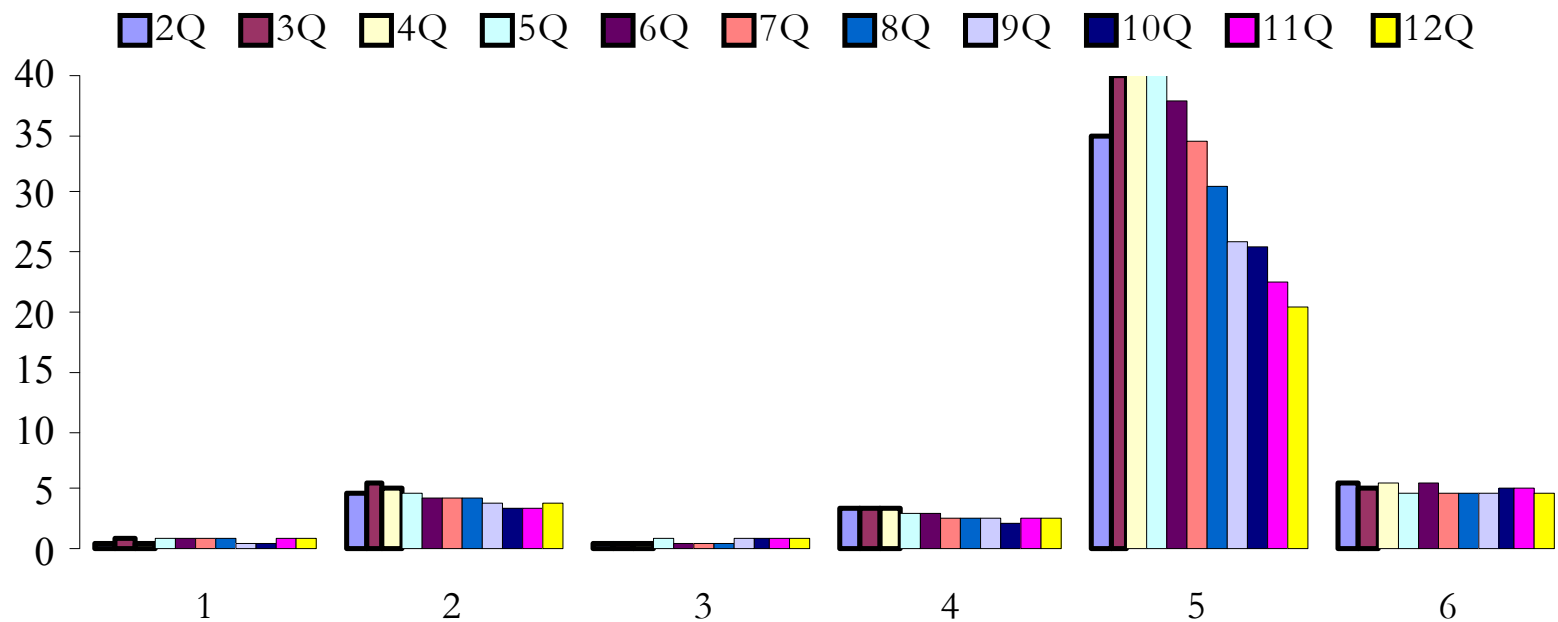
4: Circulatory/Phys Nervous

5: Cancer

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# Early Duration Terminations

Early Duration **Deaths** per 1000 months exposed



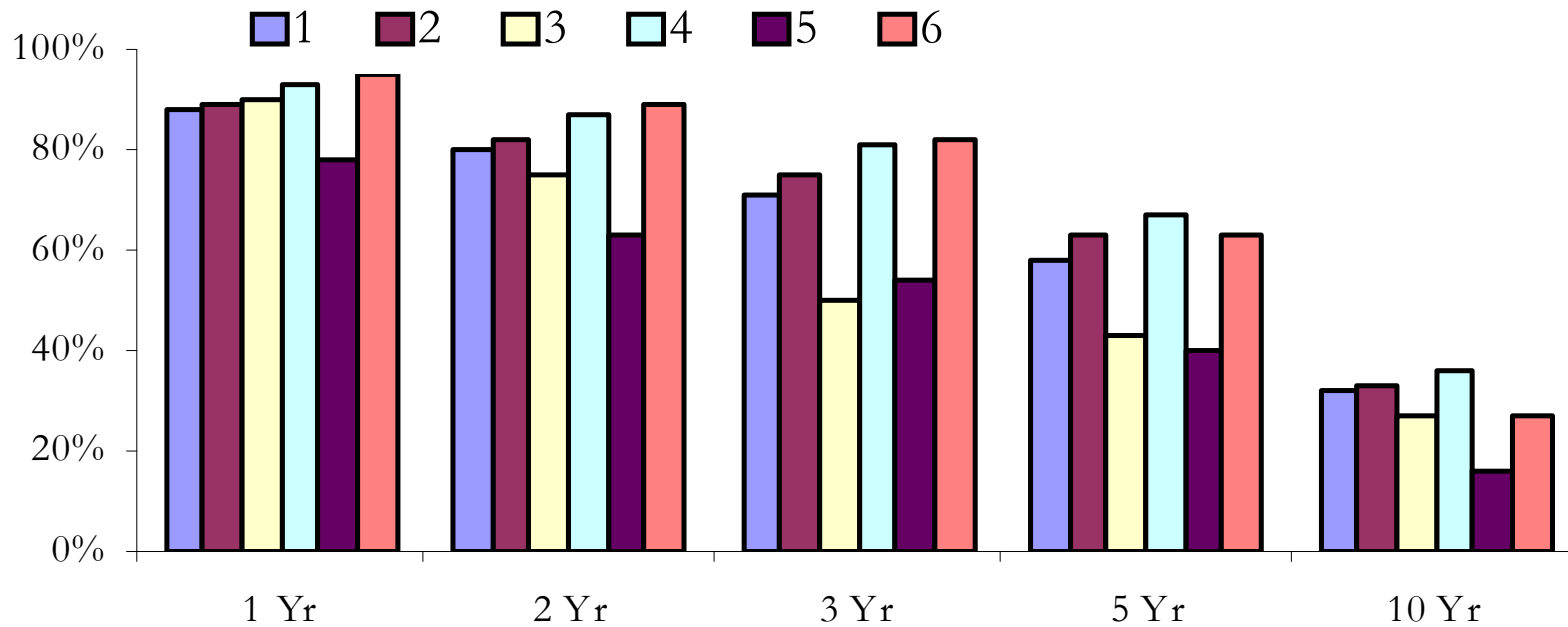
1: Back, Injury, Musculo  
2: Digestive, Other

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# Claim Survivorship

## Claim Survivorship by Duration and Diagnosis Group

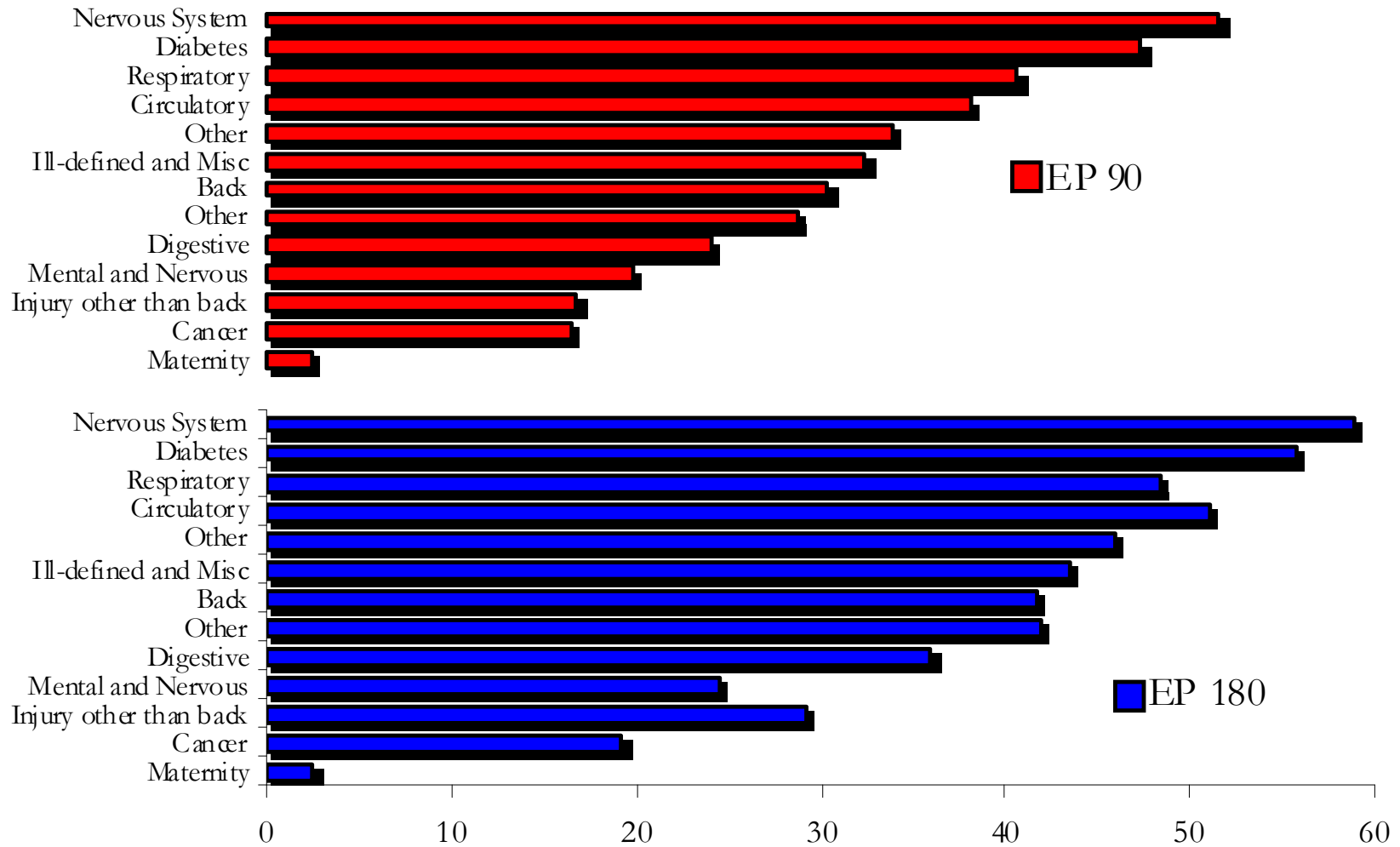


1: Back, Injury, Musculo  
2: Digestive, Other

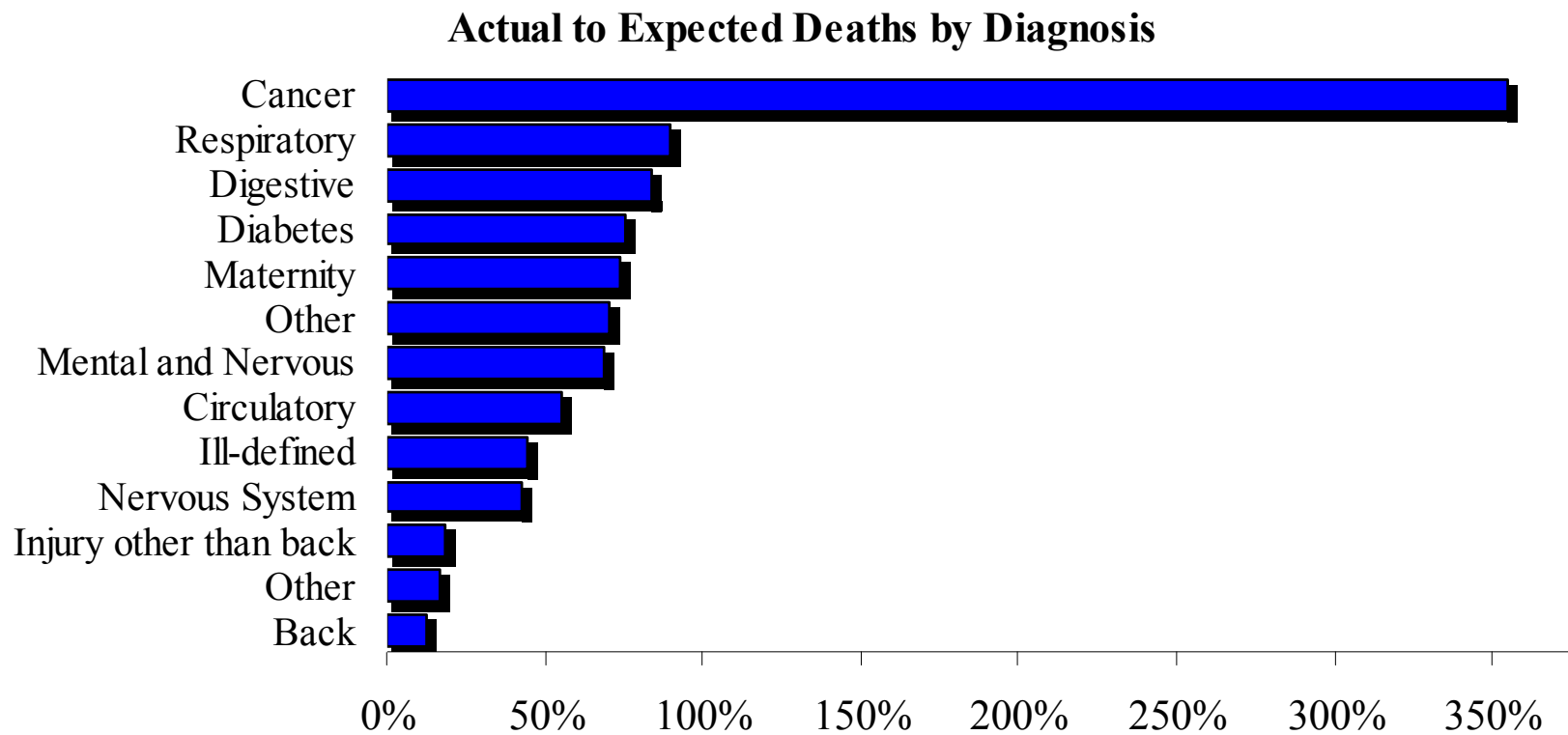
3: Mental & Nervous  
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5: Cancer  
6: Respiratory/Diabetes

# Estimated Cost per New Claim



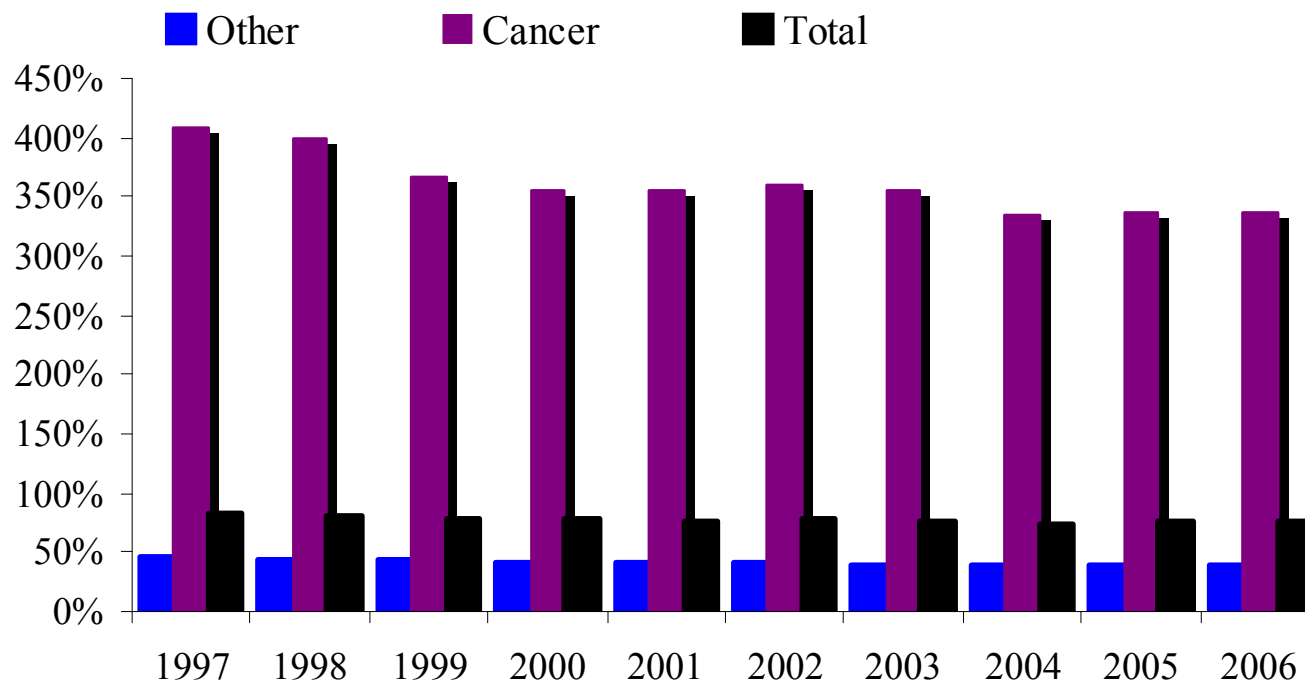
# Impact of Cancer Claims



Cancer Death Rate is 13.6 times as high as non-cancer death rate

# Impact of Cancer Claims

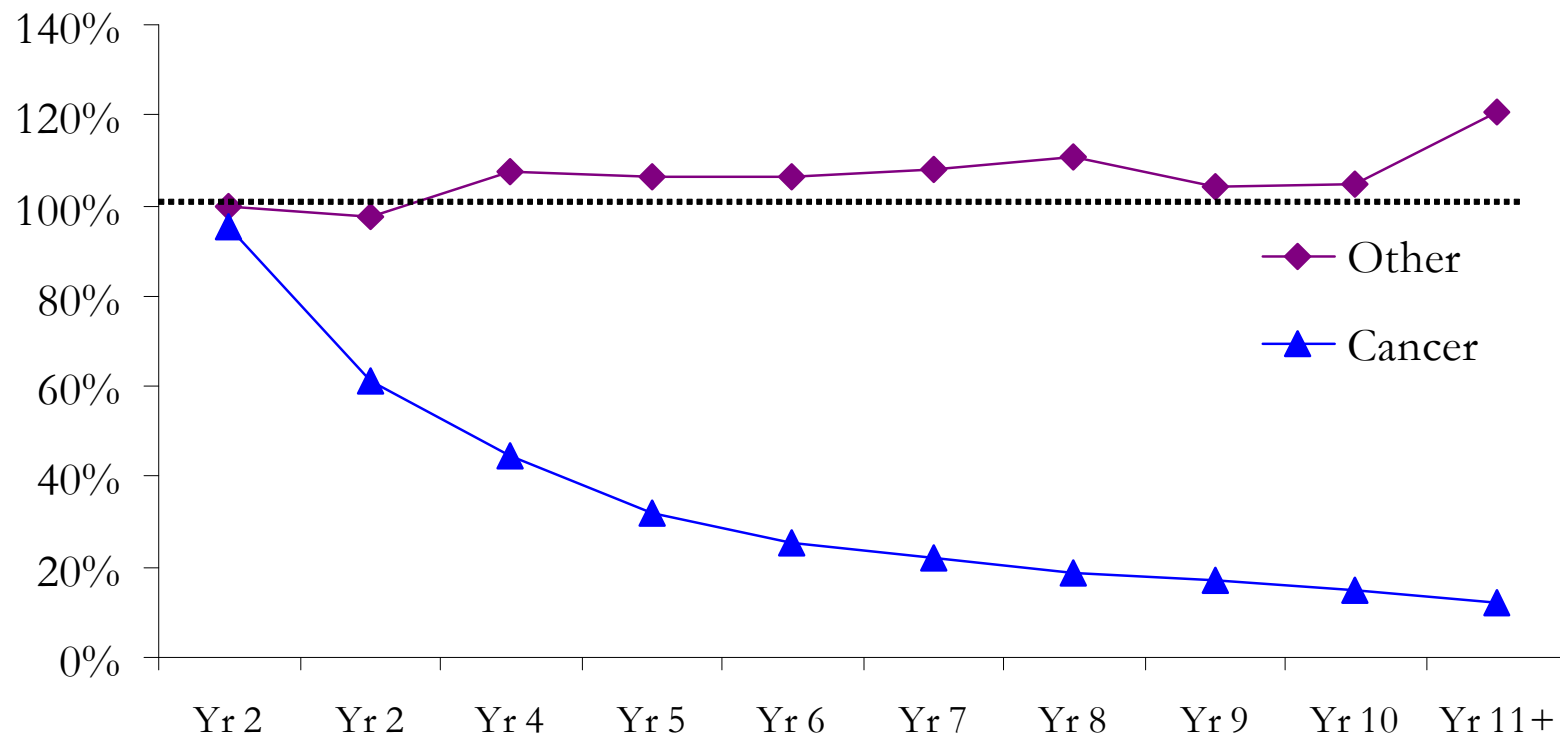
## Actual to Expected Deaths



Non-cancer claims show half the mortality improvement of cancer claims

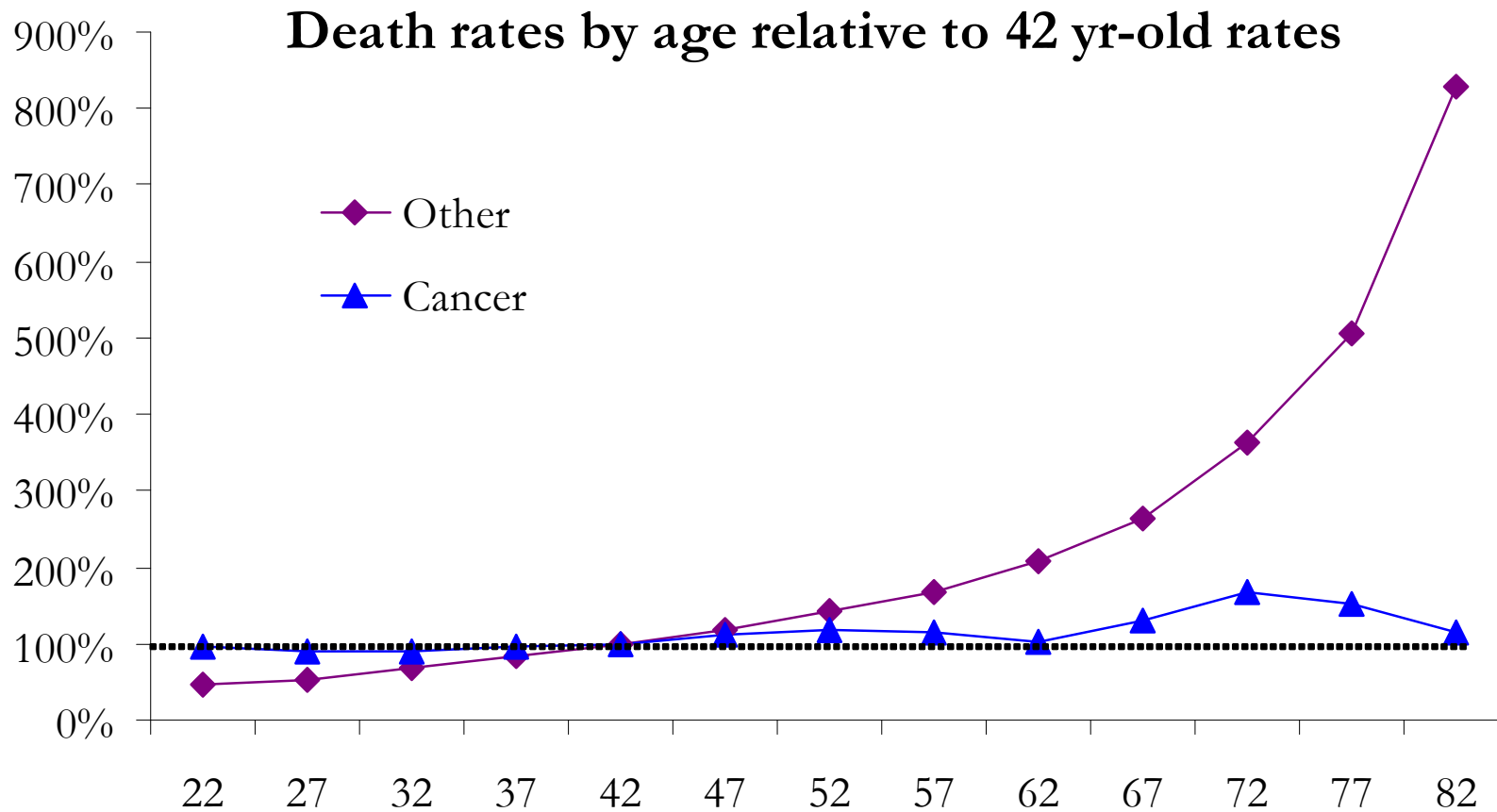
# Impact of Cancer Claims

## Death rates by duration relative to first year rates



Cancer rates decline by duration while the others increase

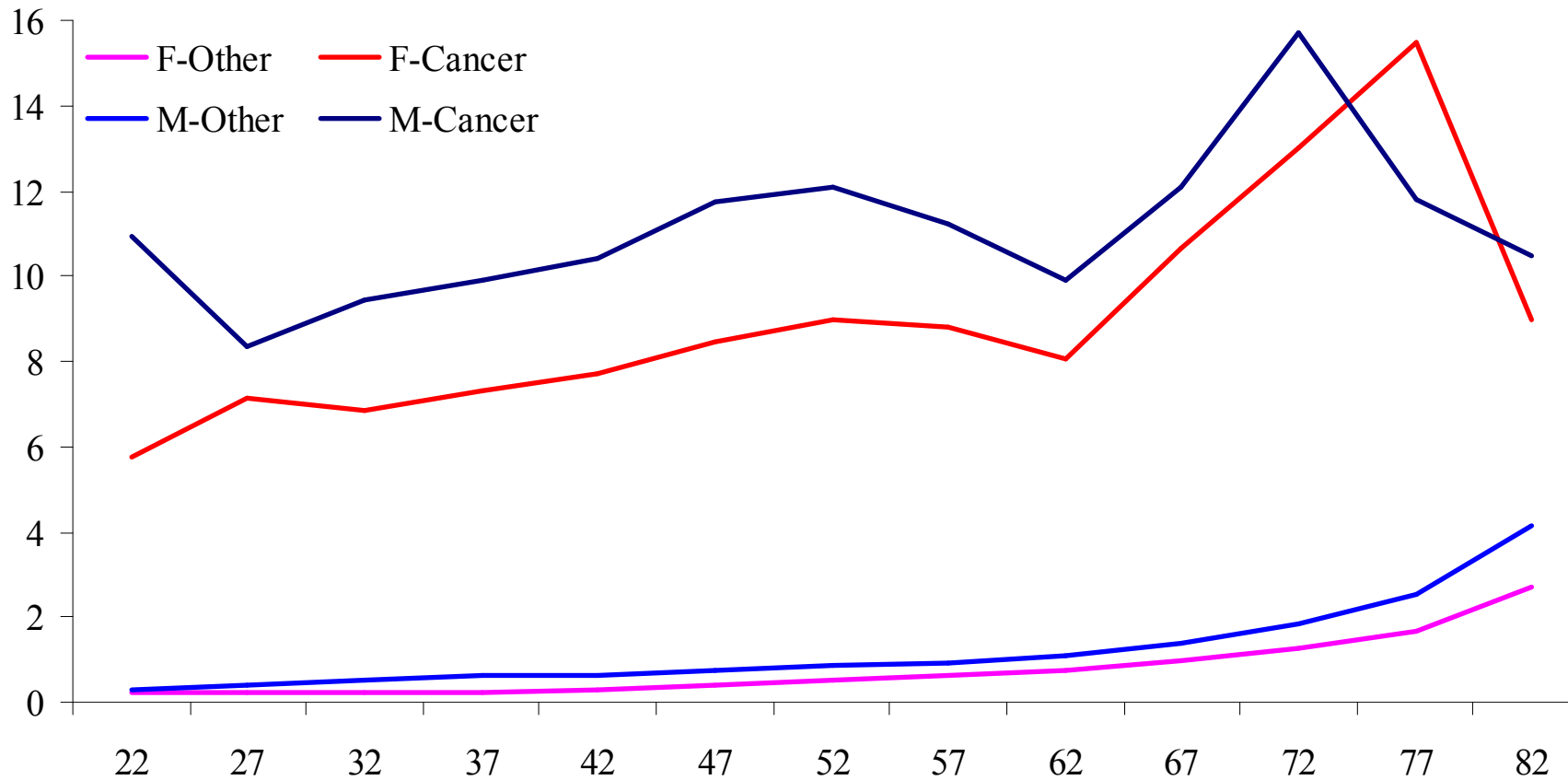
# Impact of Cancer Claims



Other rates increase with age while cancer rates do not

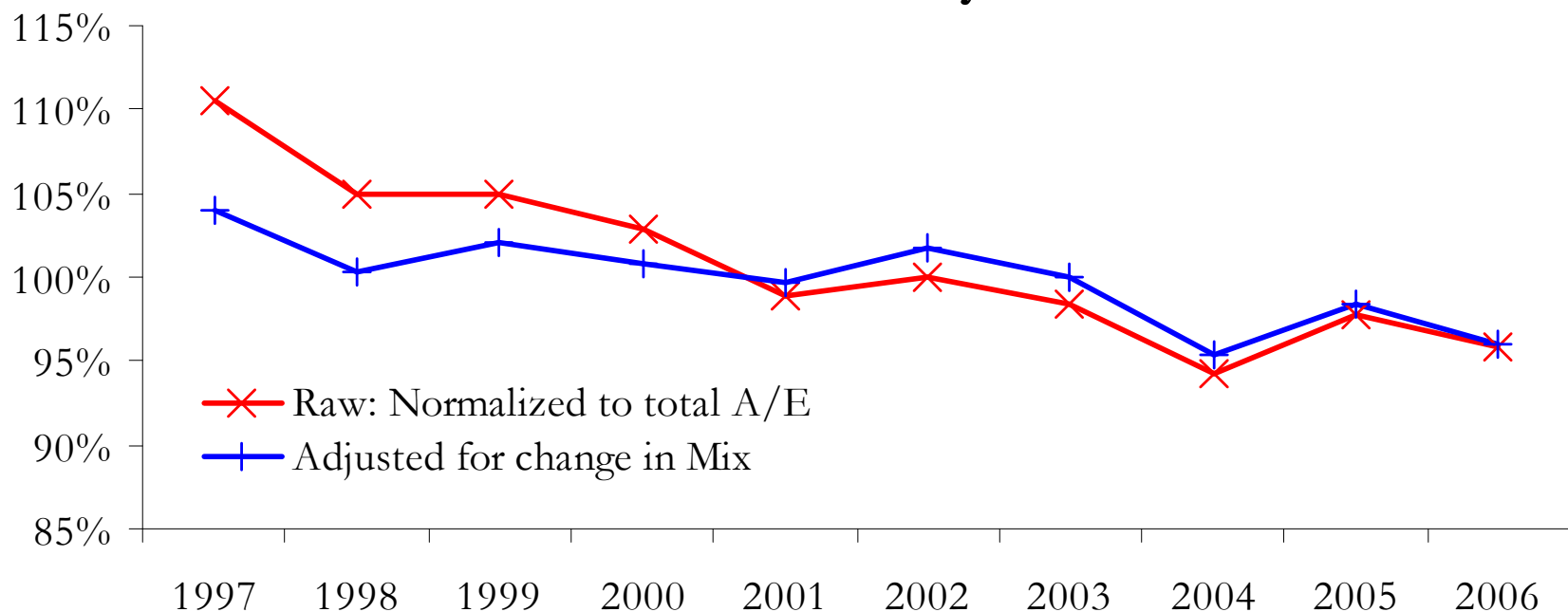
# Impact of Cancer Claims

**Ratio of Death Rates by age and gender vs Avg 42 yr old rate**



# Mortality Improvement

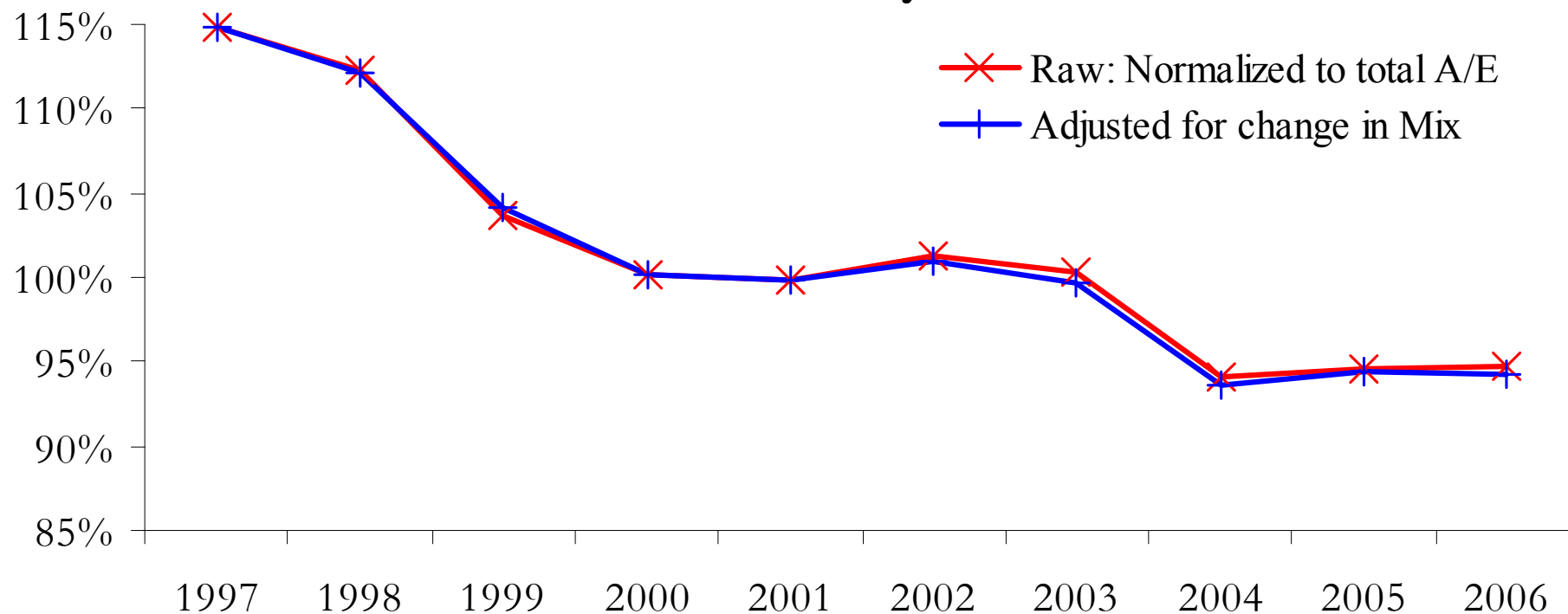
## Non-Cancer: A to E Deaths by Calendar Year



Roughly half of non-cancer mortality improvement is explained by claim mix

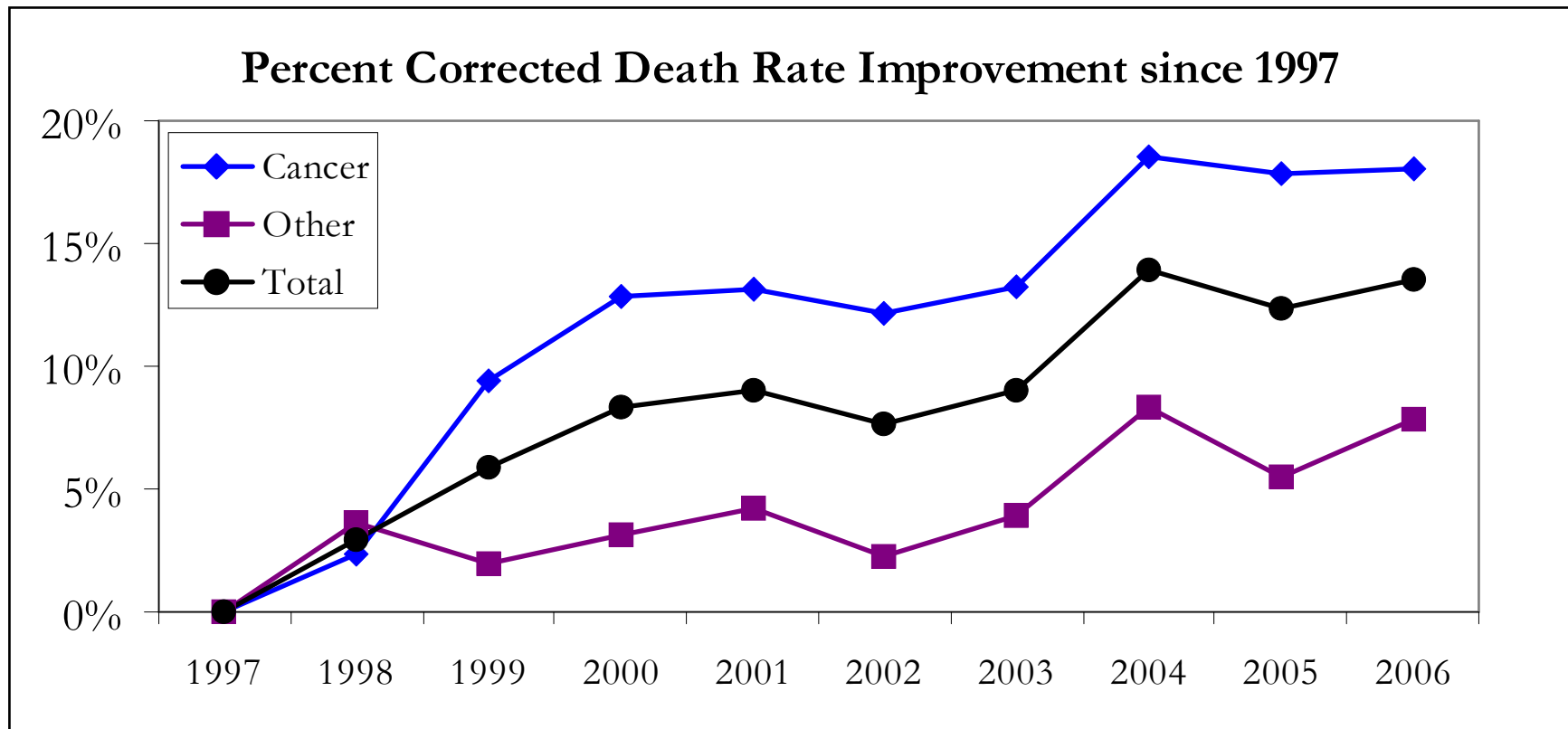
# Mortality Improvement

## Cancer: A to E Deaths by Calendar Year



Cancer mortality improvement is not affect by claim mix

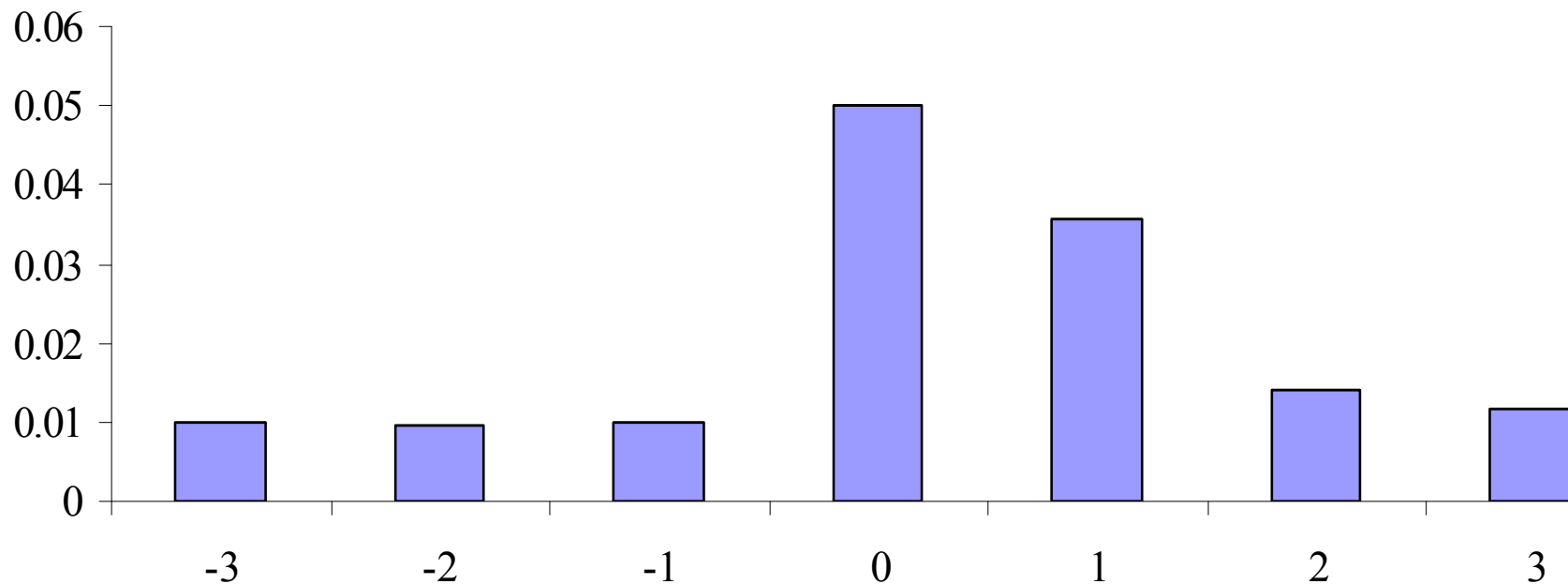
# Mortality Improvement



10% improvement in death rates equals about 1.5% lower total claim cost

# Change in Definition

**Recovery Rates vs Months since Change in Definition**

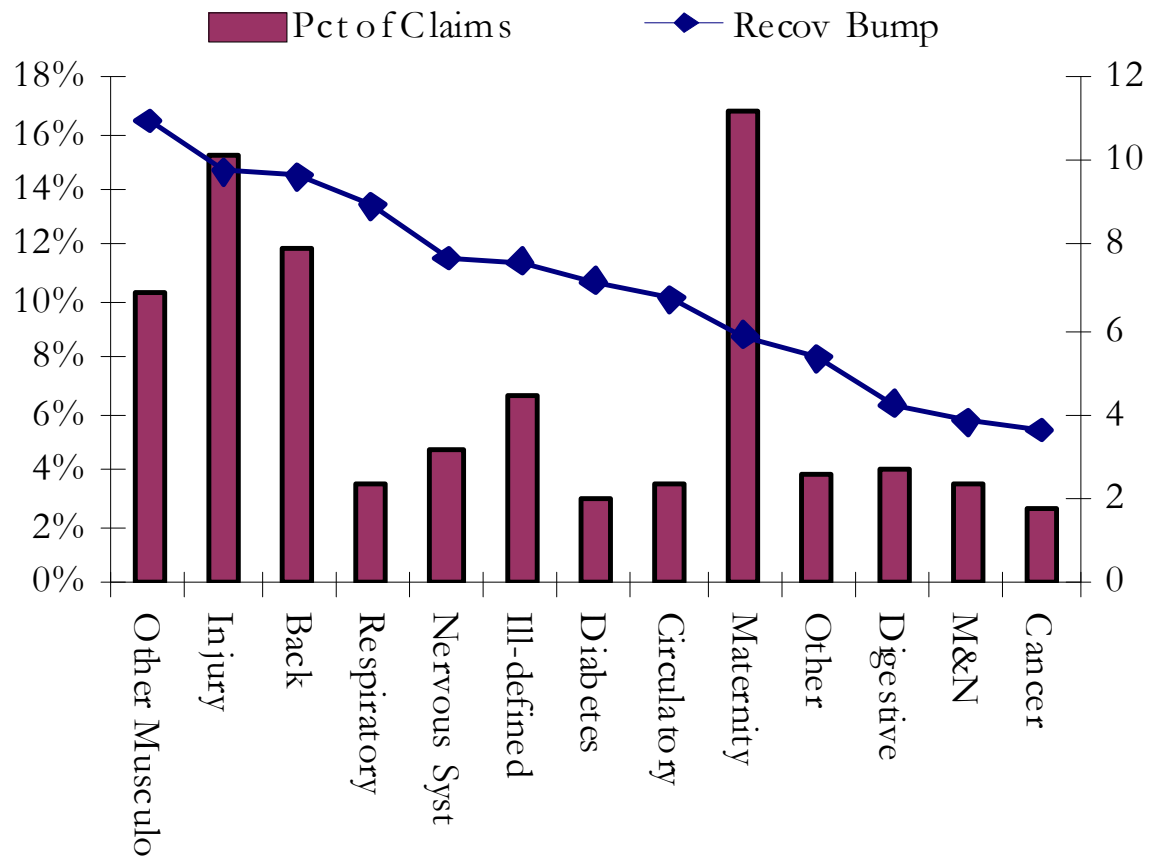


Some Change in Definition Recoveries spill over into the next two months

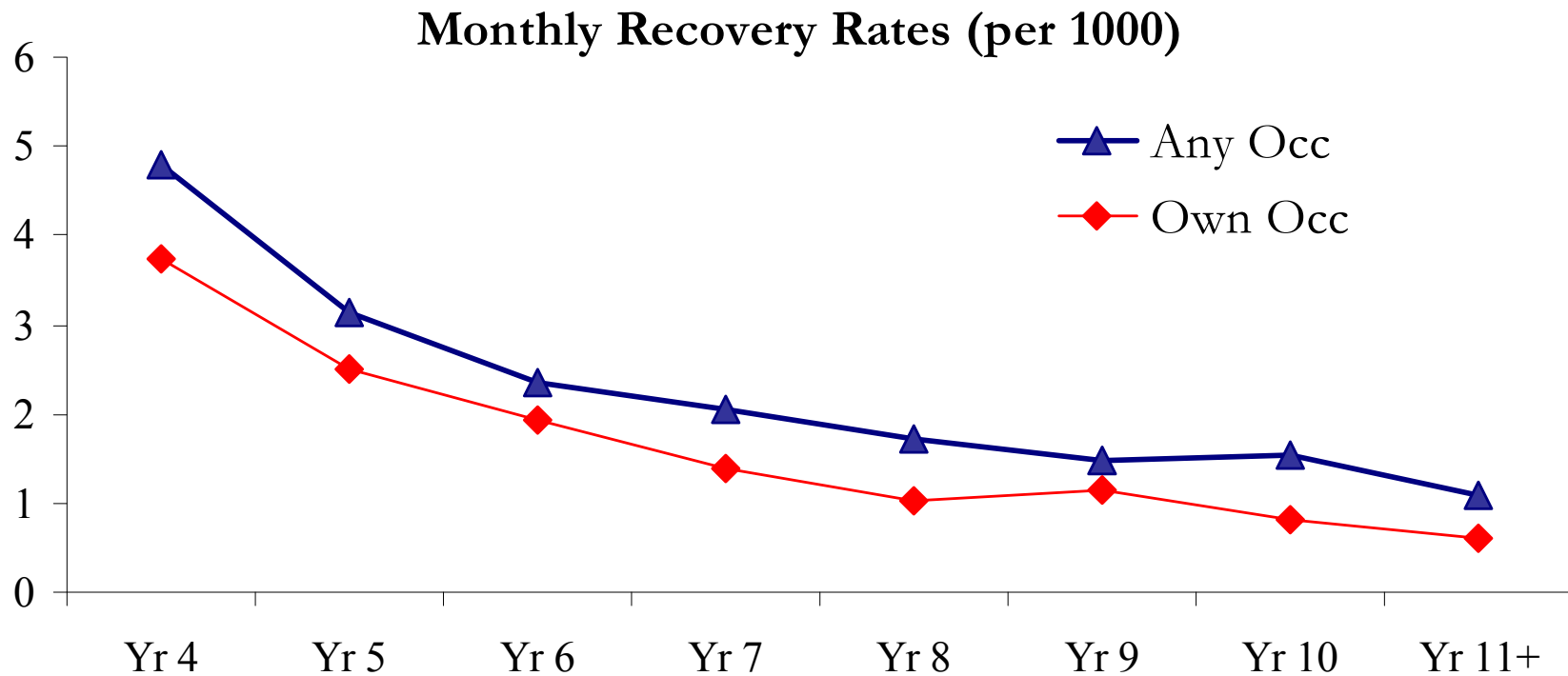
Approximately 7% of claims recover = 8 times the normal rate

# Change in Definition

	Pct of Claims	Recov Bump
Other Musculo	10.4%	11.0
Injury	15.2%	9.8
Back	11.8%	9.7
Respiratory	3.5%	8.9
Nervous Syst	4.8%	7.7
Ill-defined	6.6%	7.6
Diabetes	3.0%	7.1
Circulatory	3.5%	6.7
Maternity	16.9%	5.8
Other	3.9%	5.4
Digestive	4.1%	4.2
M&N	3.5%	3.8
Cancer	2.7%	3.6

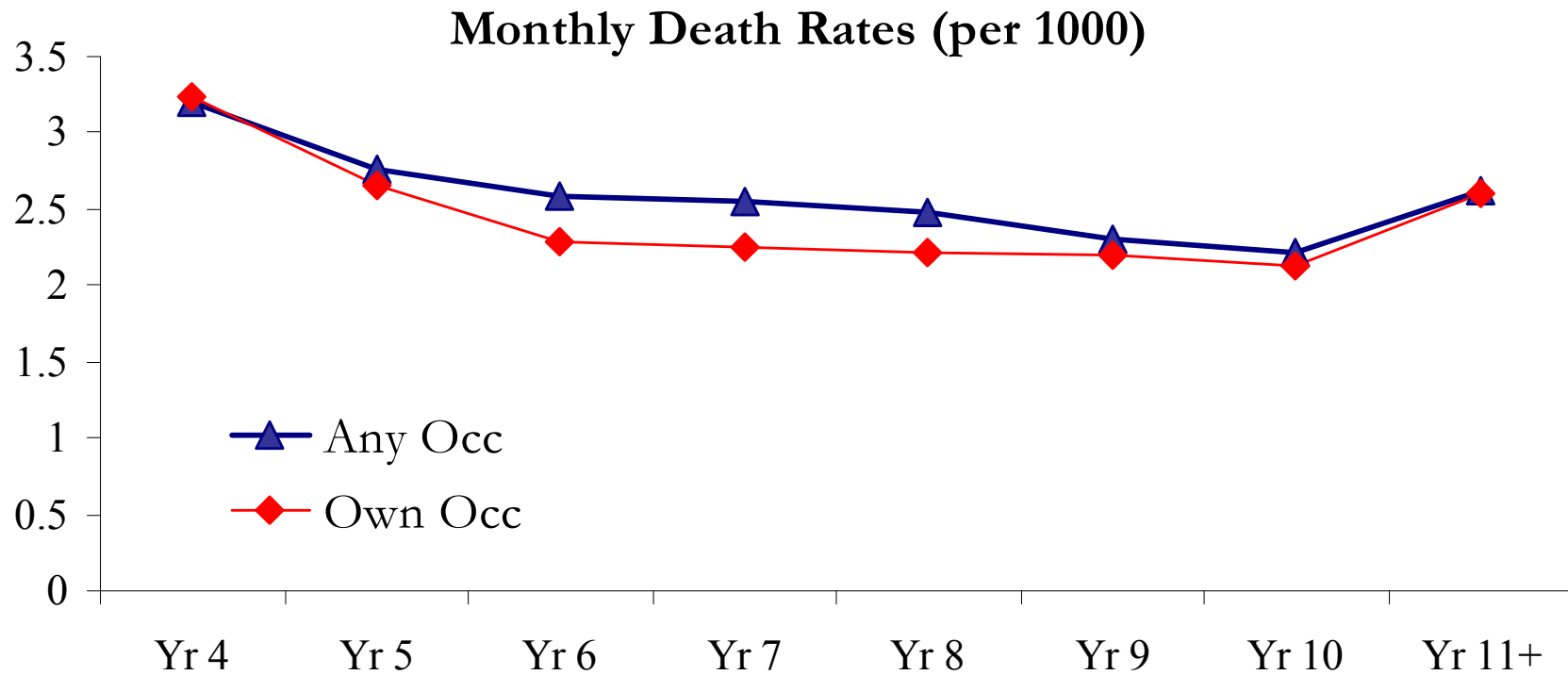


# After the Change in Definition



Post 36 Month A to E's: Any Occ: 127% Own Occ: 91%

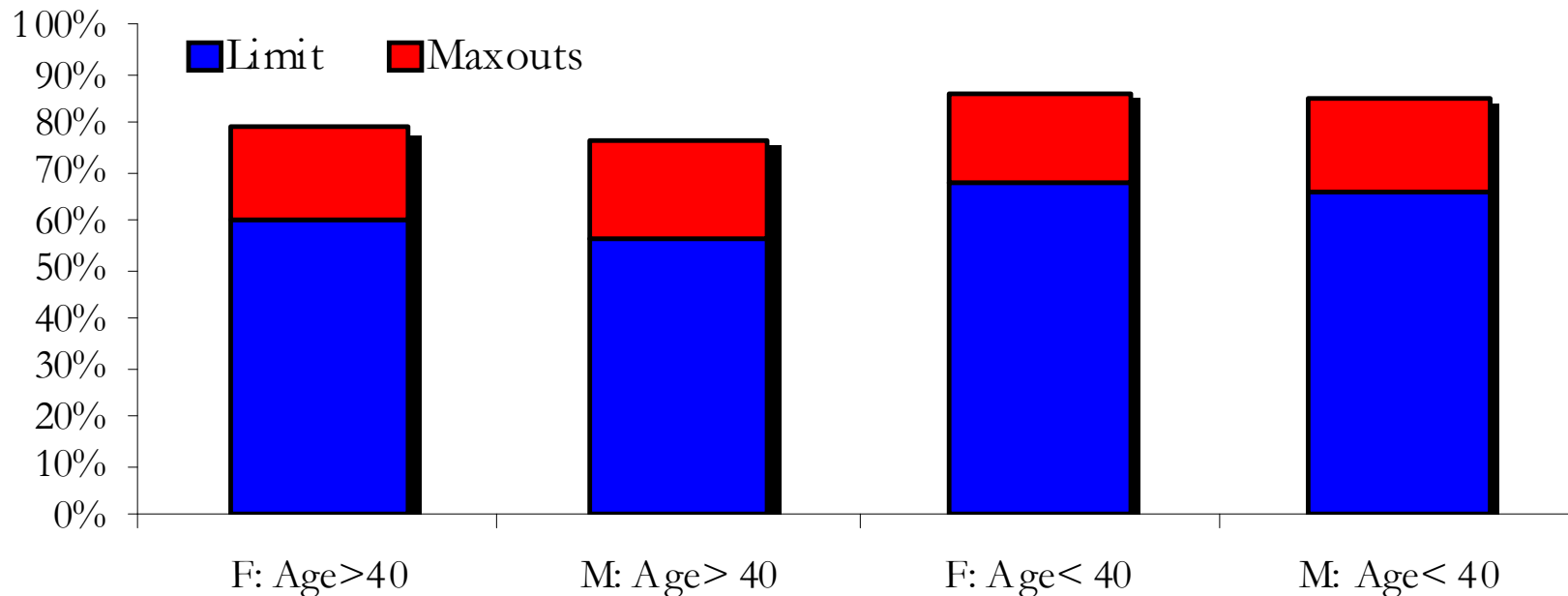
# After the Change in Definition



Post 36 Month A to E's: Any Occ: 94% Own Occ: 85%

# Mental & Nervous Limits

**M&N Closures at the Limit Date by Age and Gender**



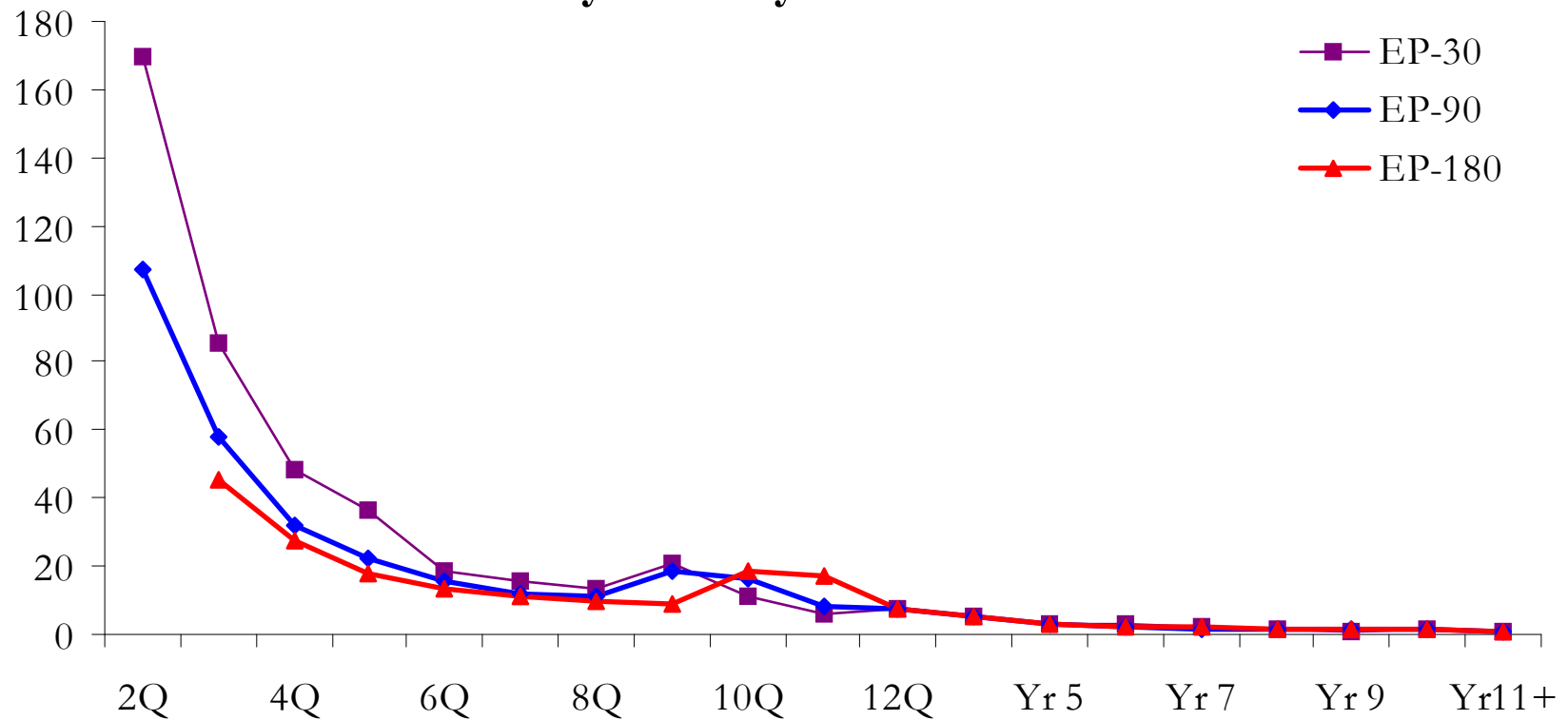
**Total Percent Closed**

F: Age>40            79.2%  
 F: Age< 40            86.6%

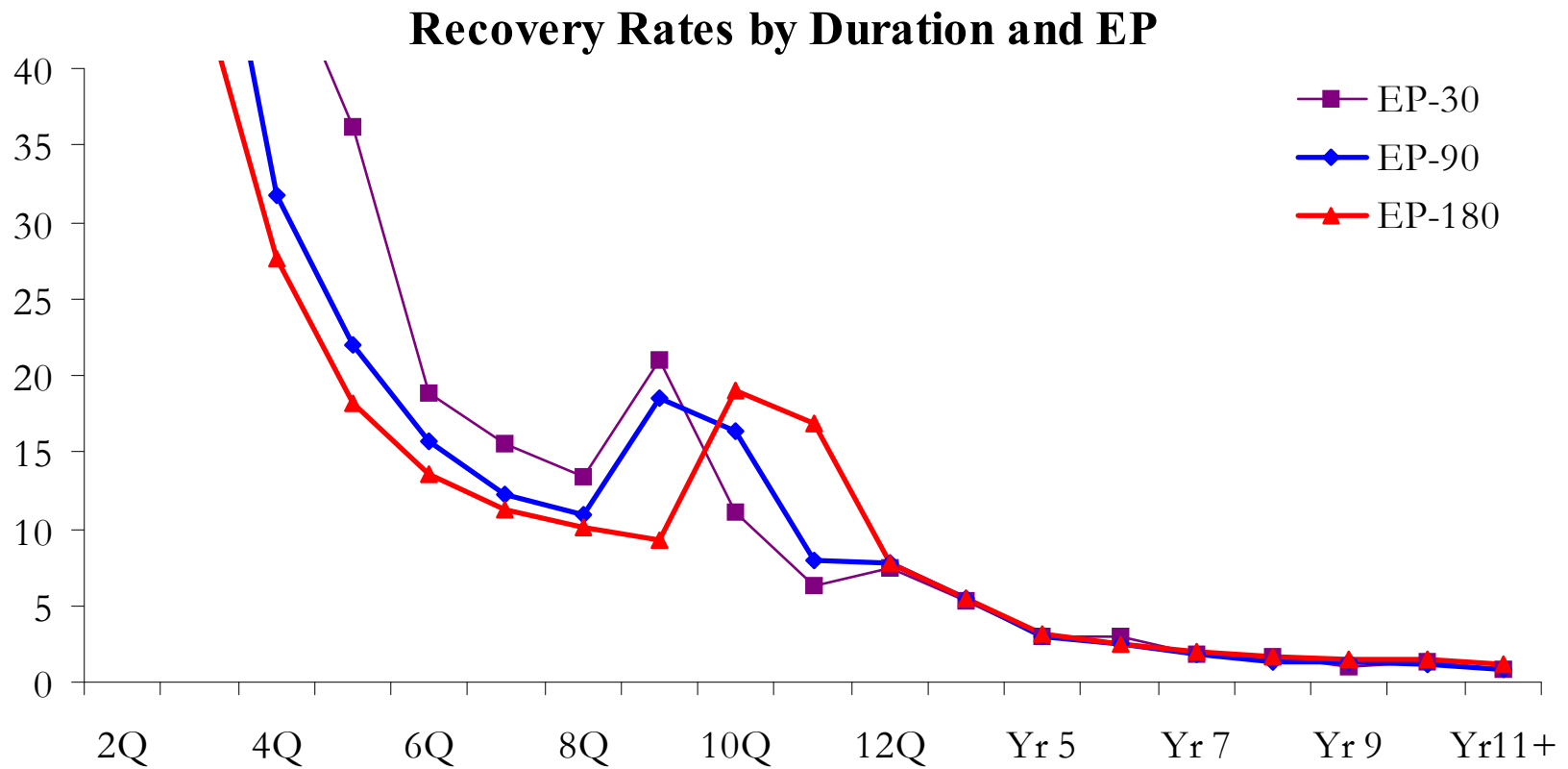
M: Age> 40            76.6%  
 M: Age< 40            85.1%

# Impact of Elimination Period

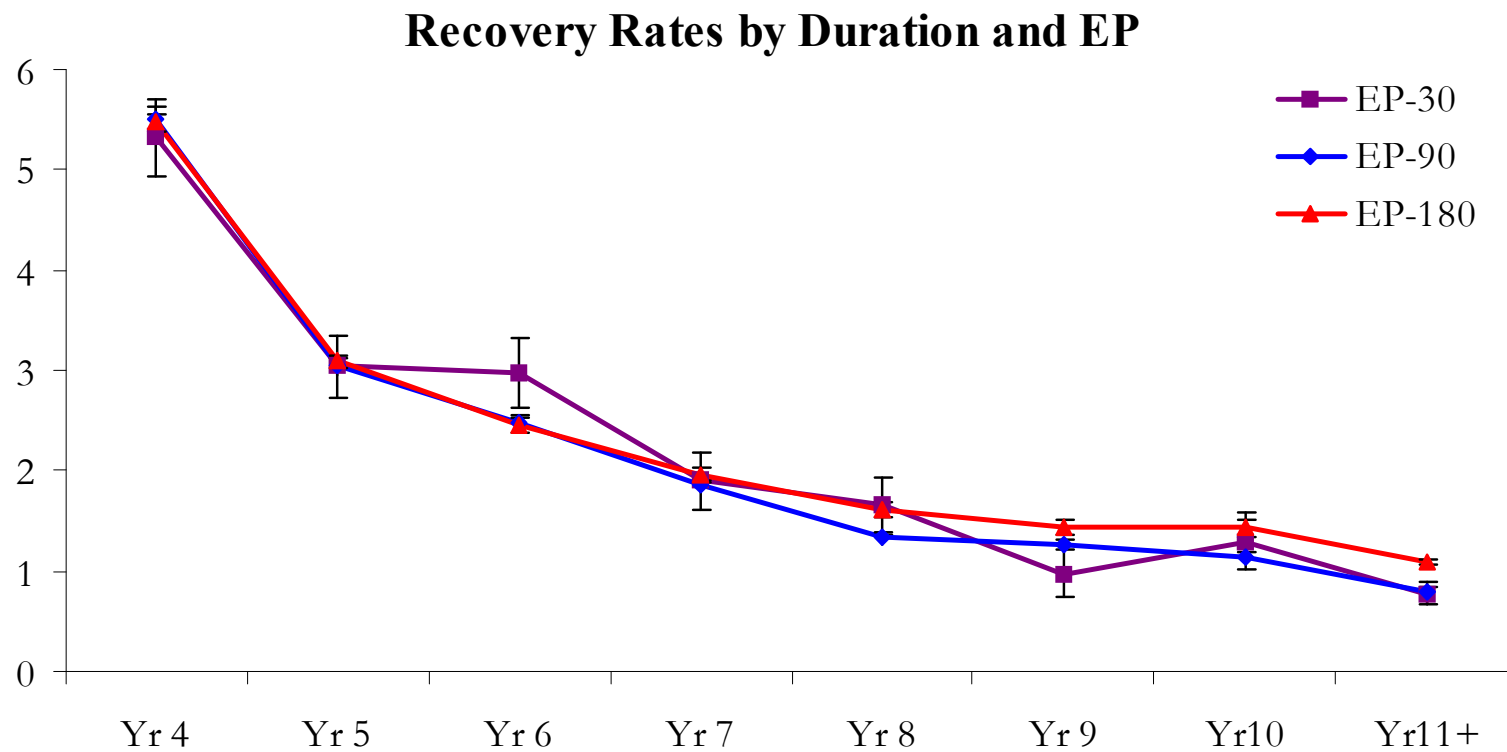
## Recovery Rates by Duration and EP



# Impact of Elimination Period



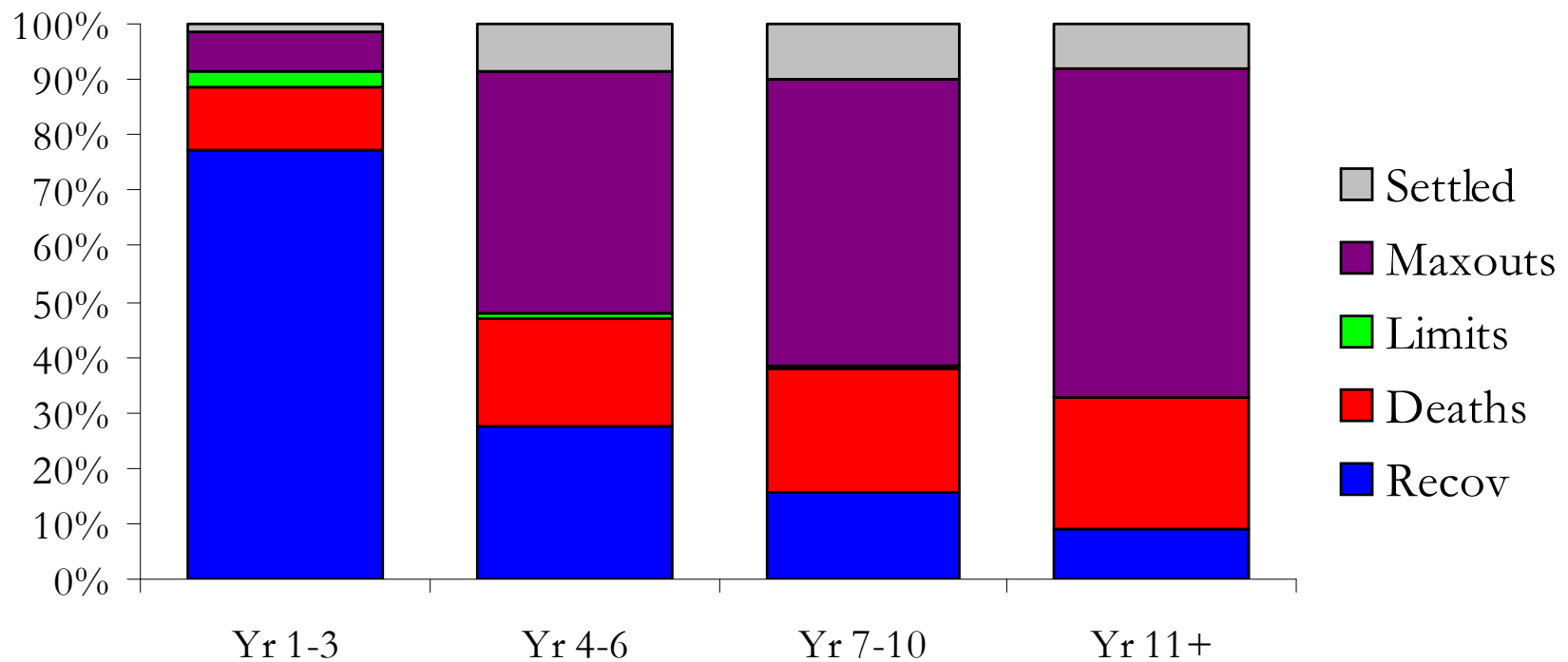
# Impact of Elimination Period



EP Effects have worn off by the 4<sup>th</sup> year of duration

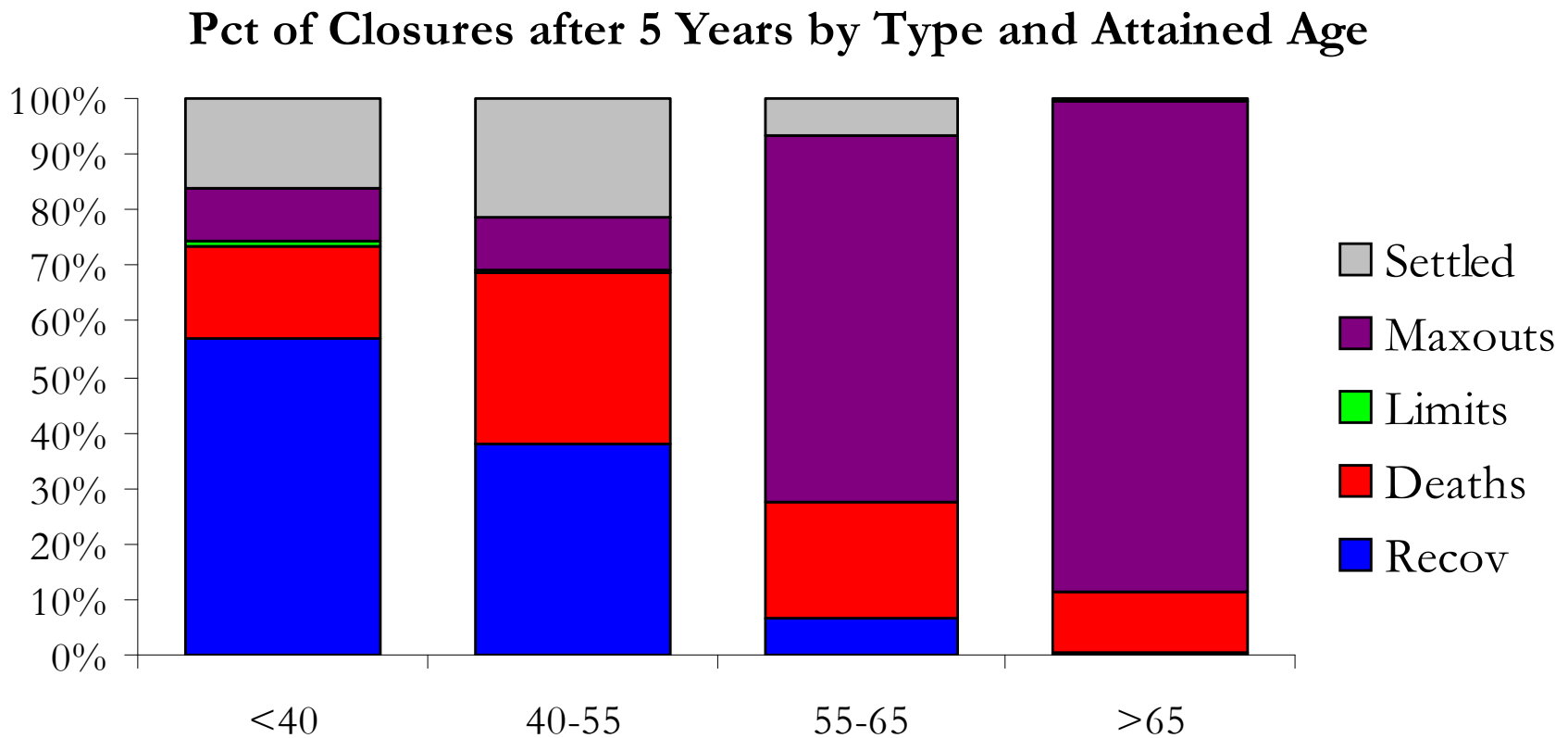
# Composition of Terminations

Percent of Closures by Type and Duration



Recovery + Settlements = 94% of Deaths after year 6

# Composition of Terminations



## 97-06 GLTD STUDY Observations

- There have been significant recovery improvements in the last few years
- There are significant variations by claim diagnosis
- Cancer claims have a very different pattern than non-cancer claims
- There has been some mortality improvement in recent years, with a greater improvement in cancer versus non-cancer claims
- Own occupation claims have a different long-term recovery pattern than any occ claims
- A significant percent of M&N claims survive past their limit date

## 97-06 GLTD STUDY – Next Steps

1. Report writing
2. Table Vendor Selection
3. Table Development
4. New Valuation Table 2010?