



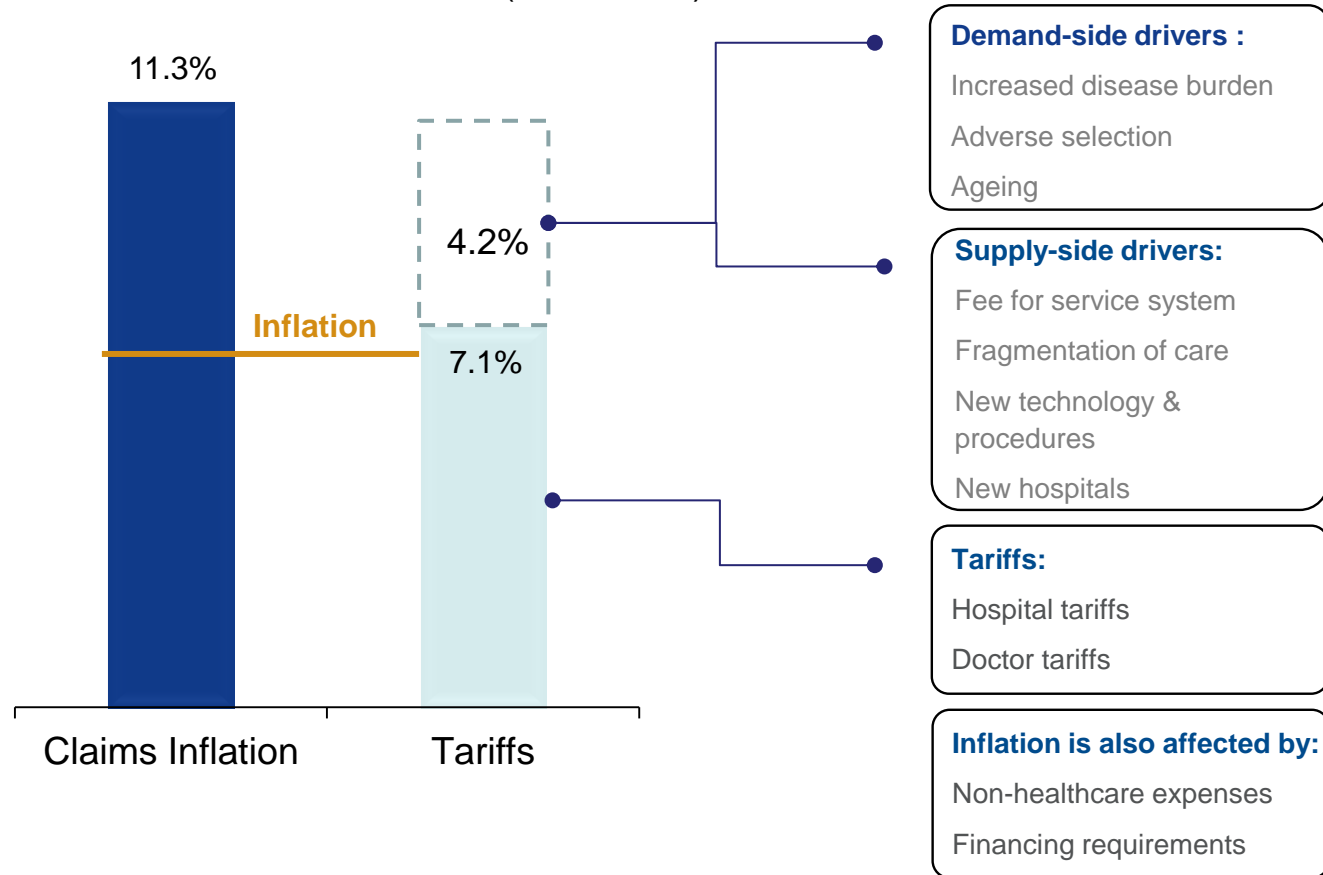
QUANTIFYING RISK, ENABLING OPPORTUNITY

## Cost Drivers and Low Cost Benefit Options

Emile Stipp | Chief Actuary | Discovery Health

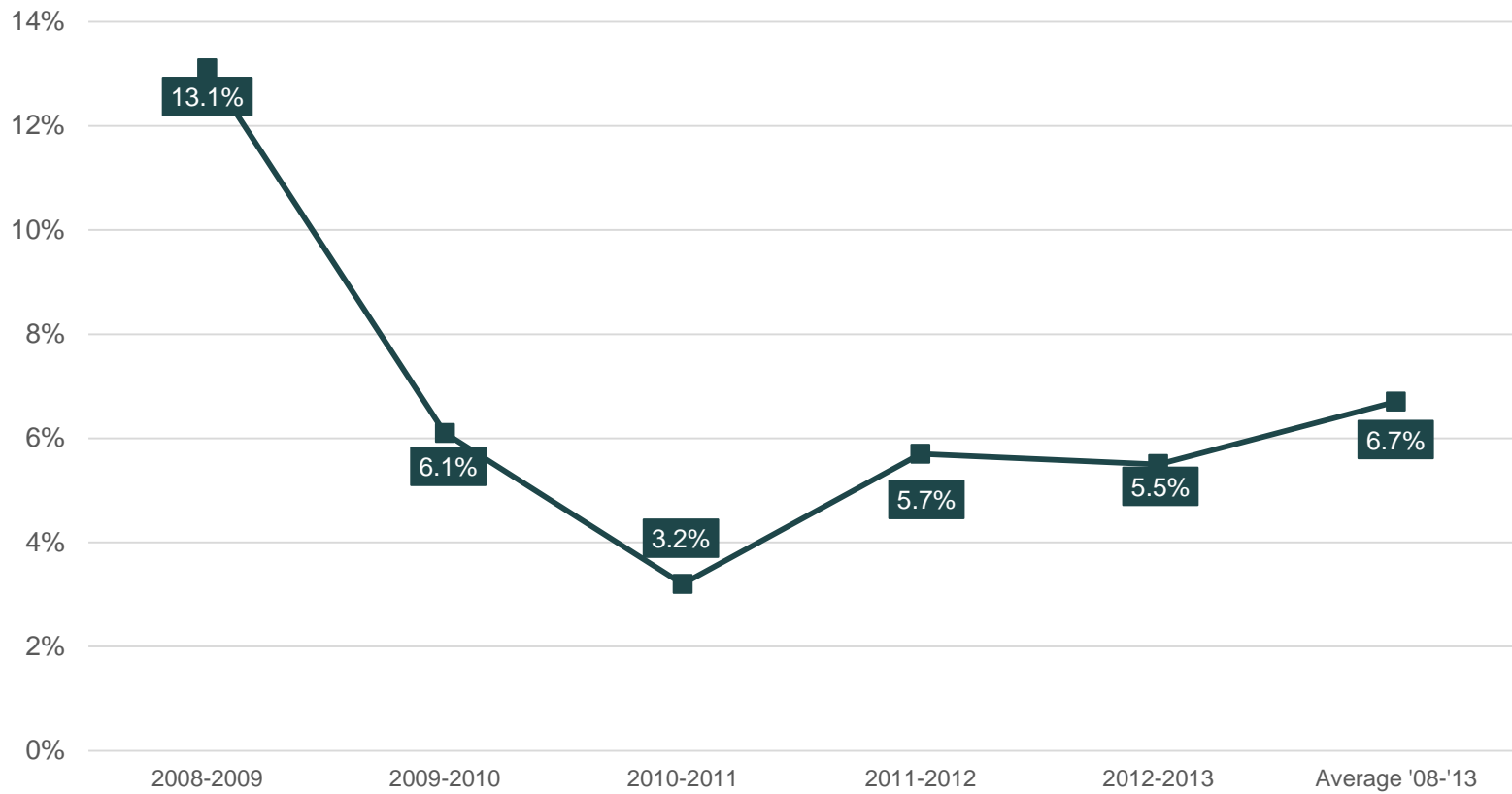
# Inflation in medical schemes

5 year average annualised claims inflation rates (2009-2013)



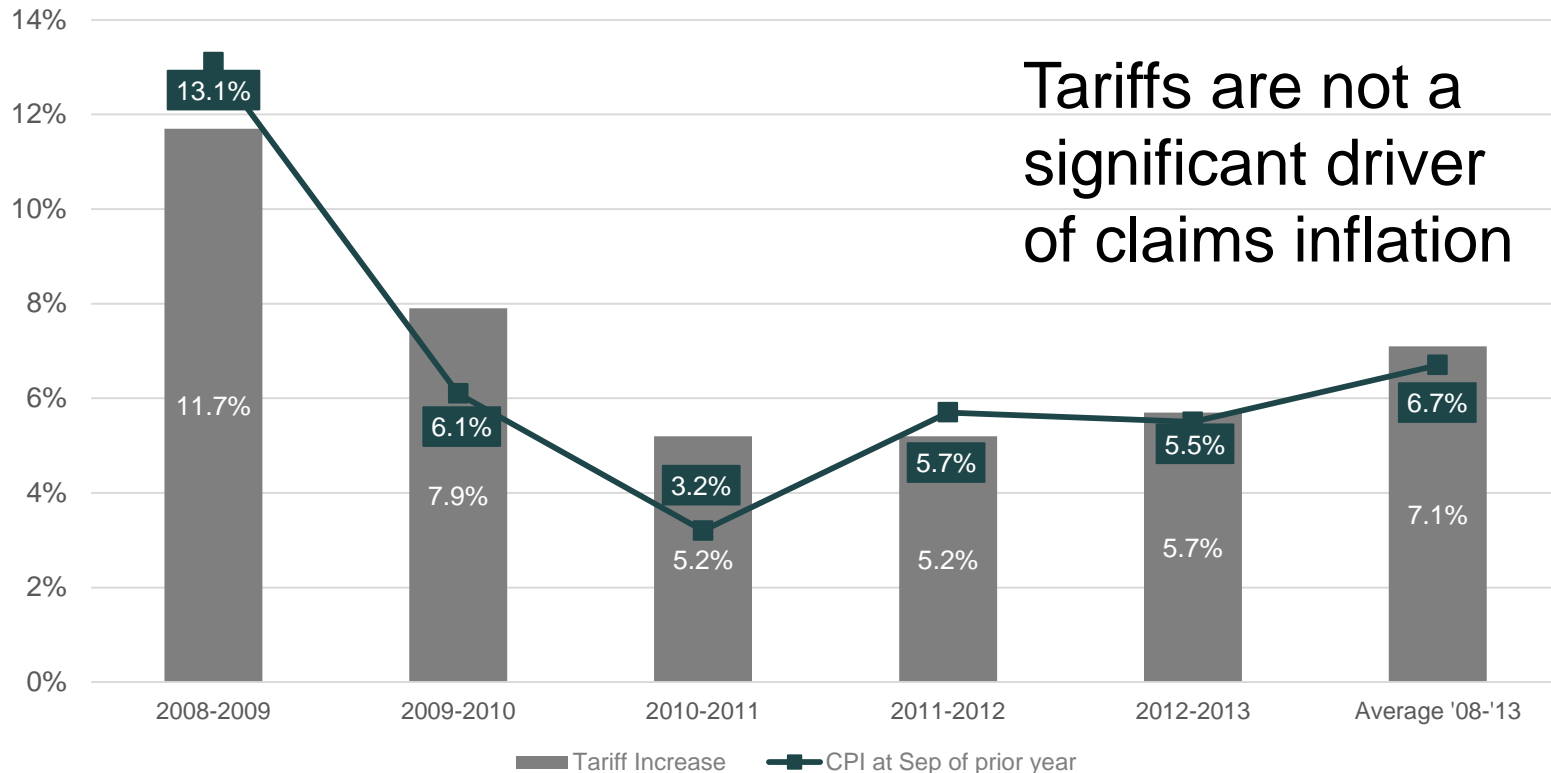
# Claims inflation

CPI between 2008 and 2013:



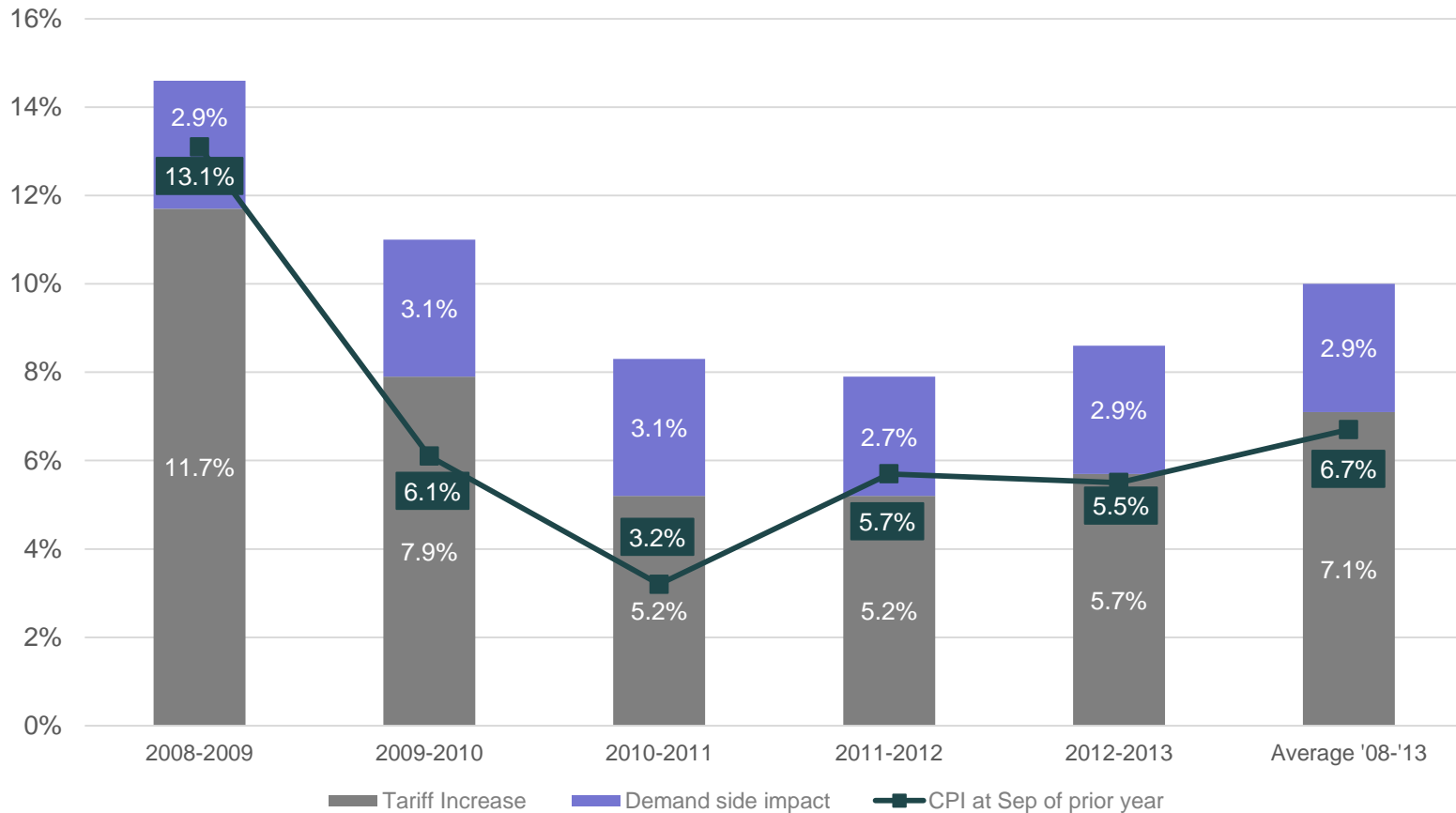
# Claims inflation

Components of claim increases between 2008 and 2013:



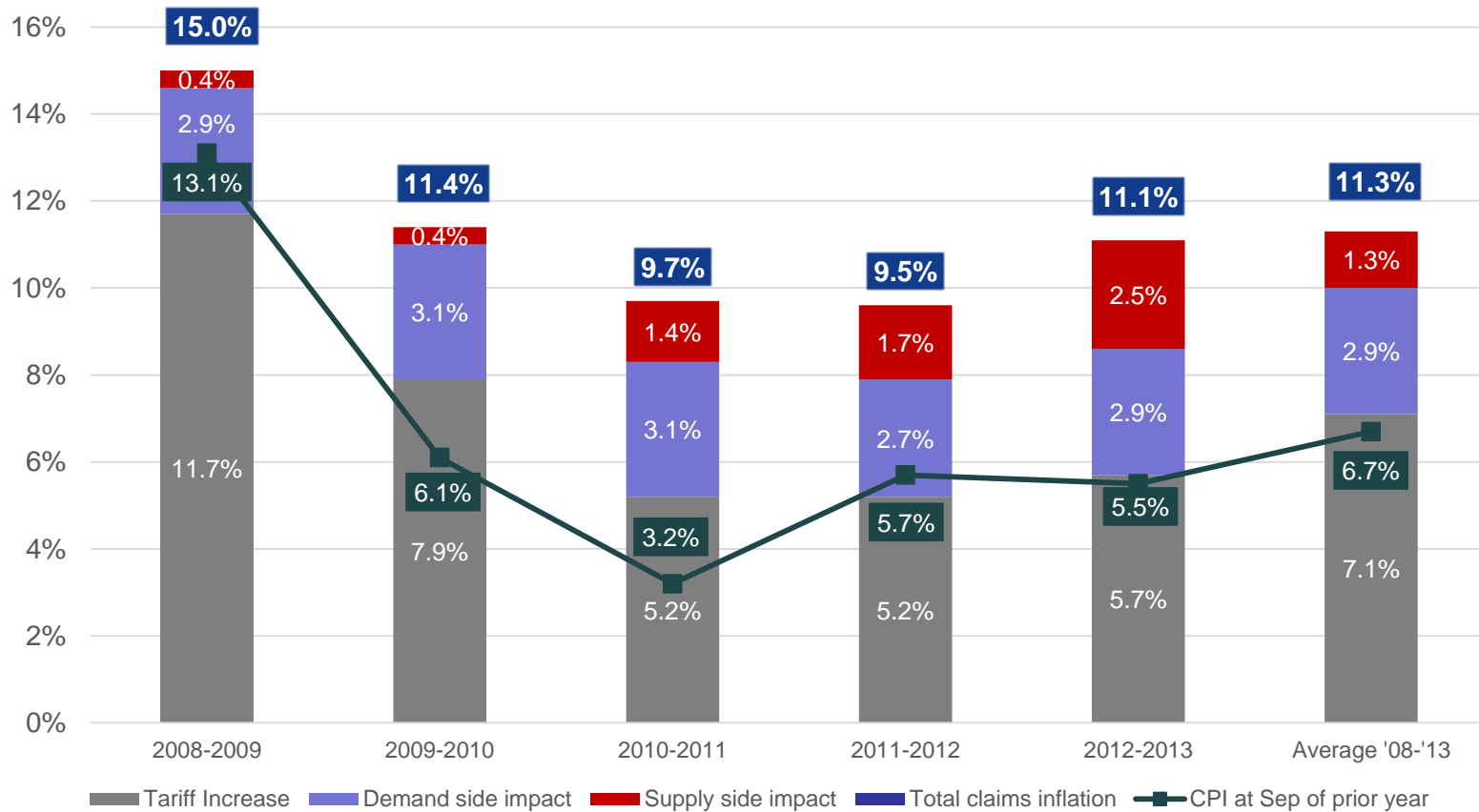
# Claims inflation

Components of claim increases between 2008 and 2013:



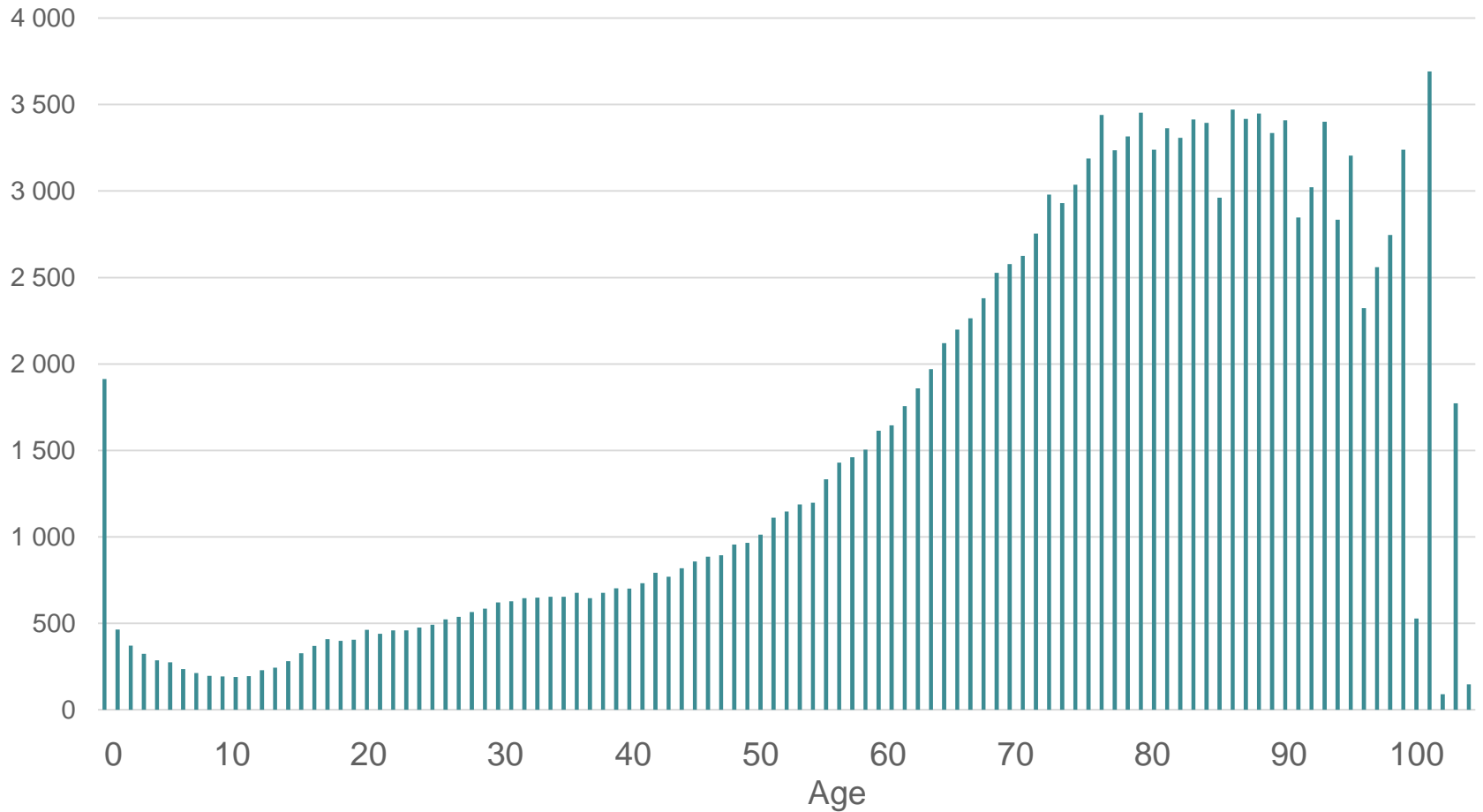
# Claims inflation

Components of claim increases between 2008 and 2013:



# Demand side inflation

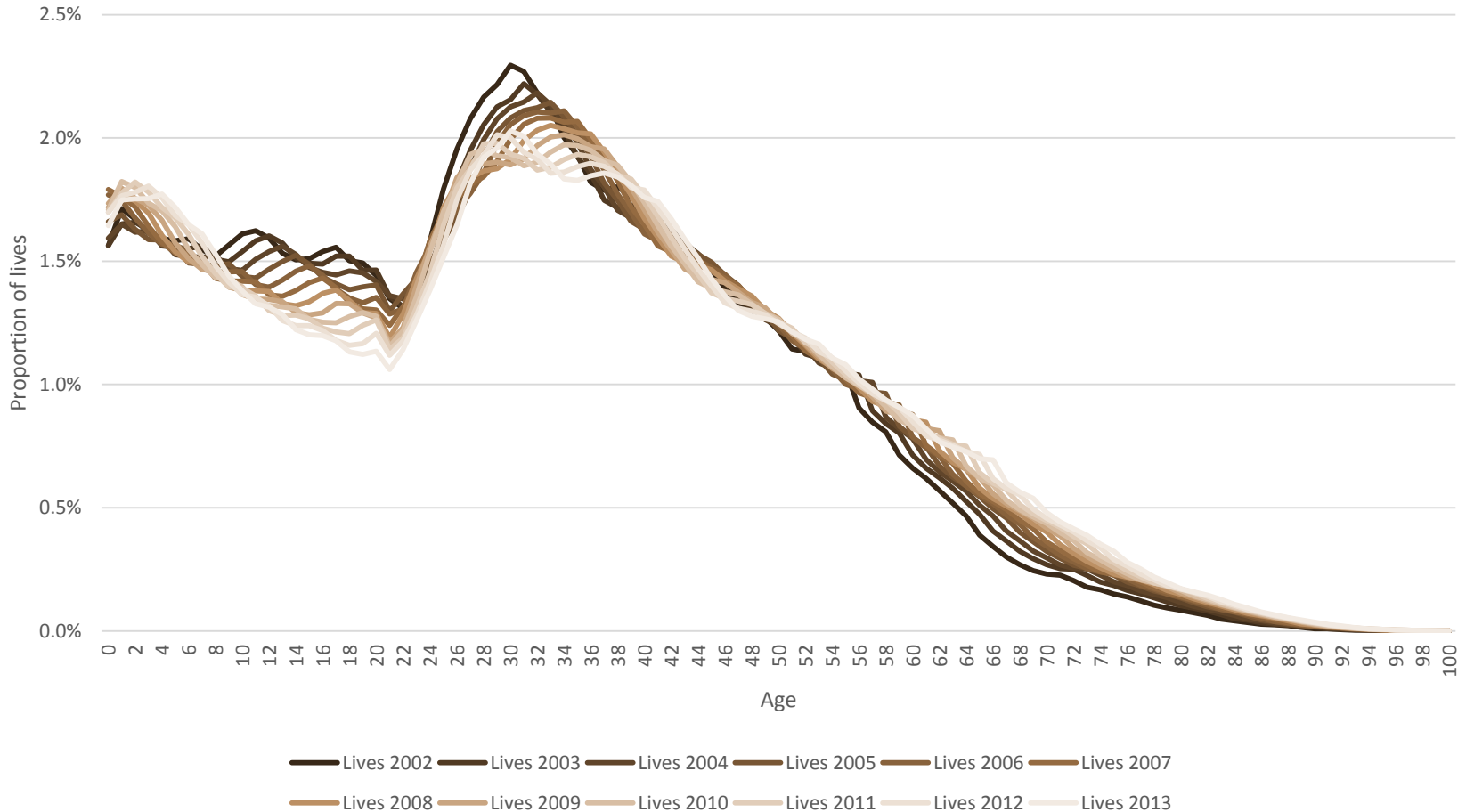
# Claims PLPM by age





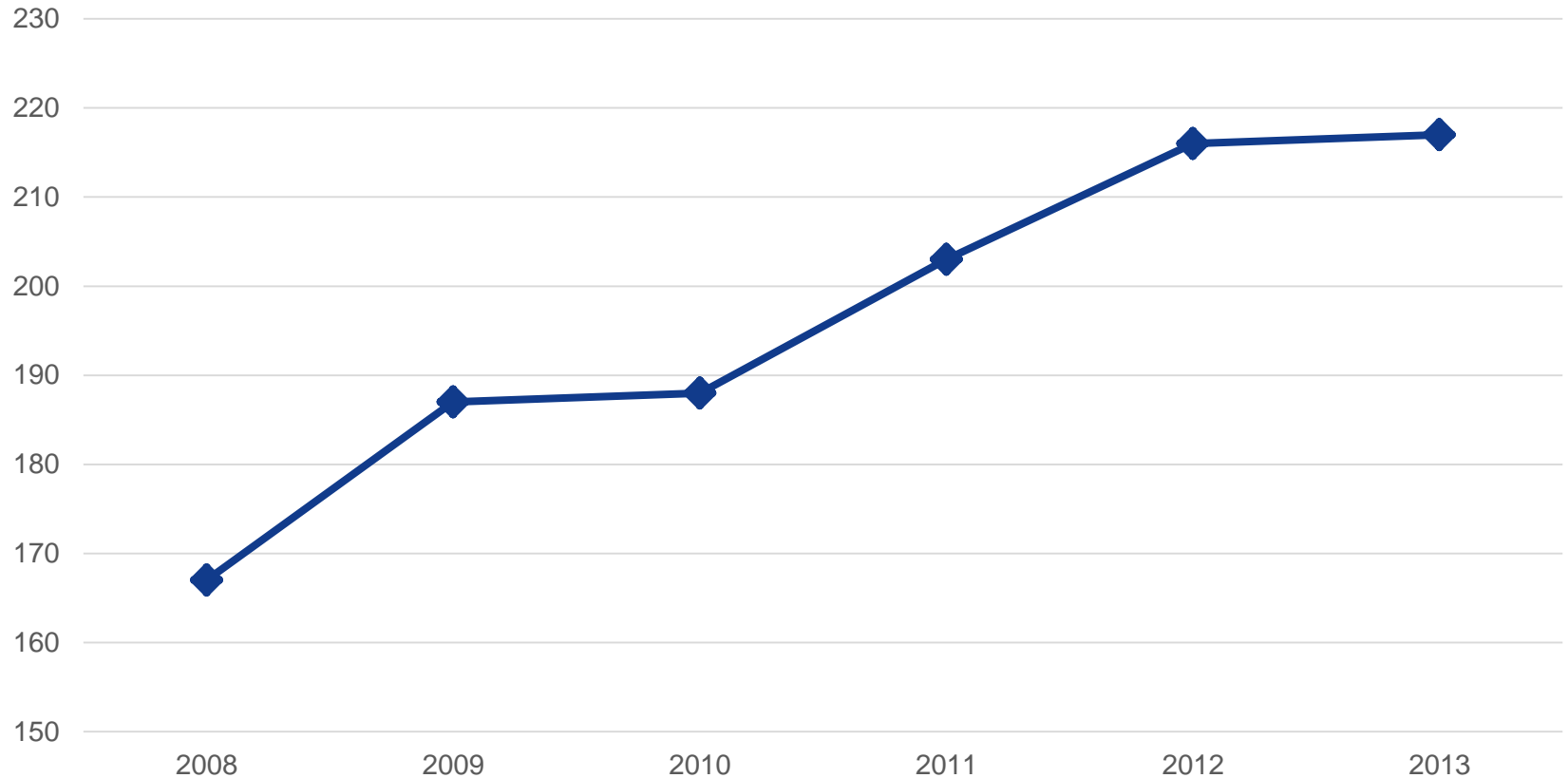
# DHMS age proportions

## Change from 2002 to 2013



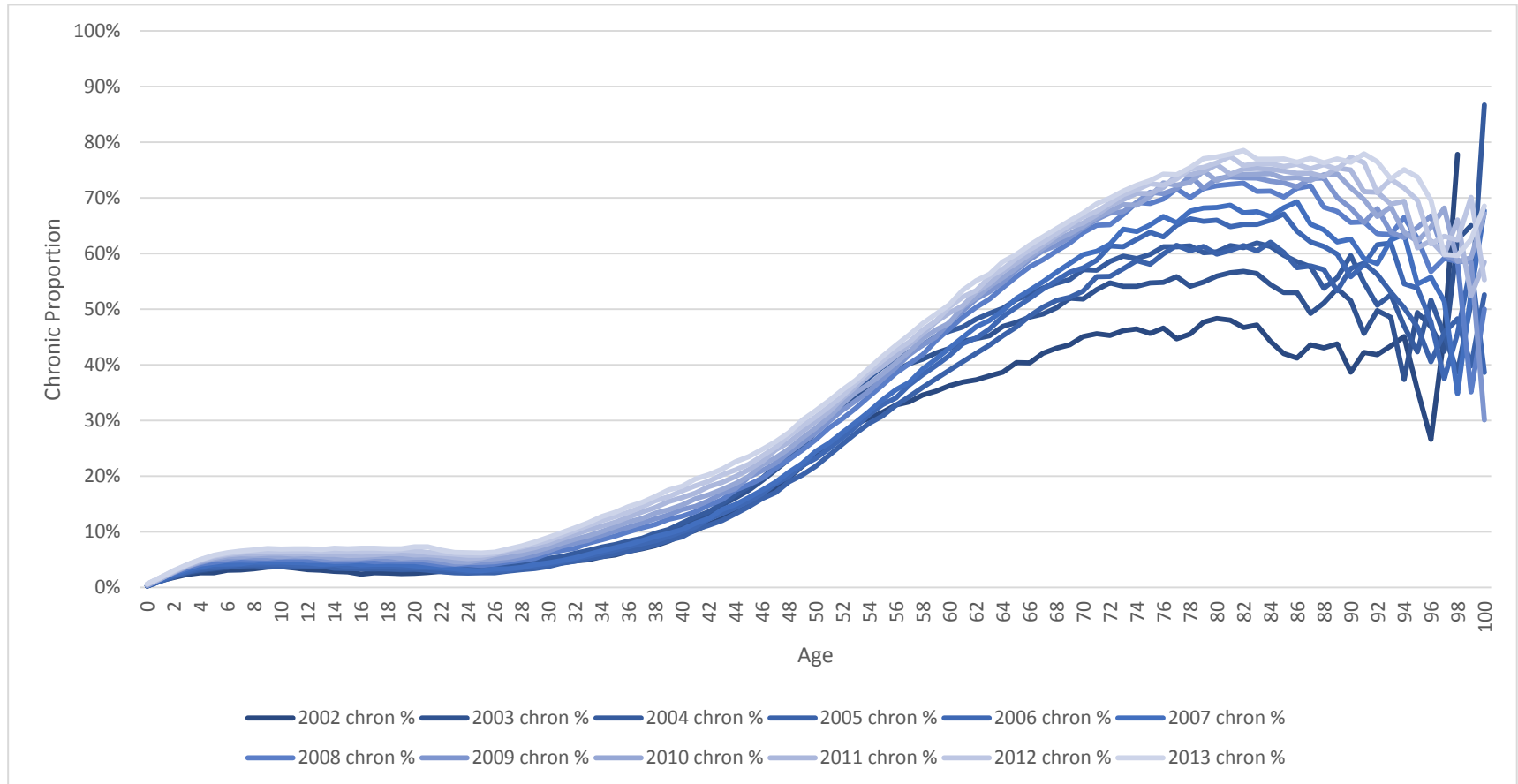
# Industry chronic prevalence

Prevalence of Top 10 diagnosed conditions per 1,000 lives

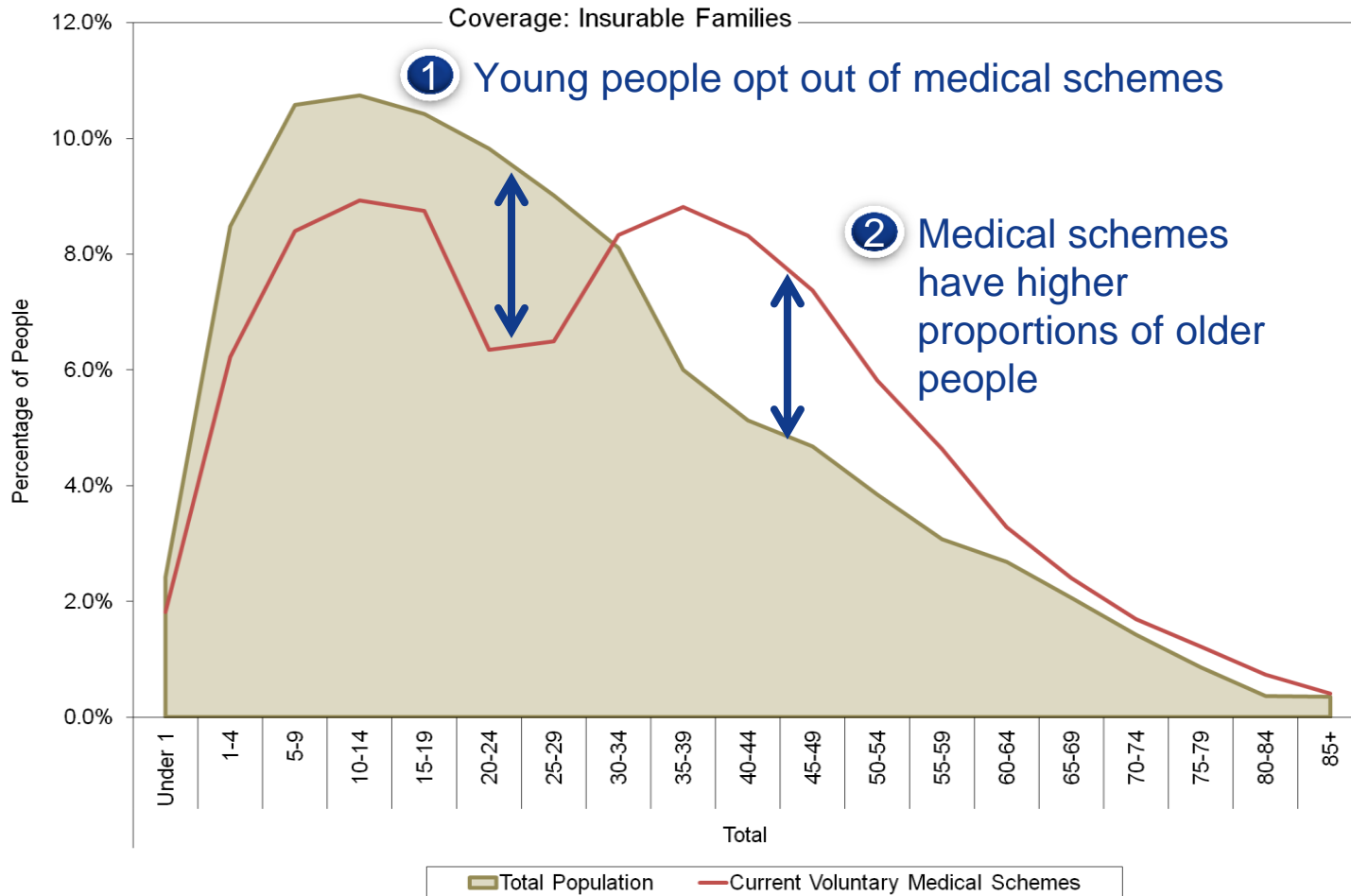


# DHMS proportion of chronic lives by age

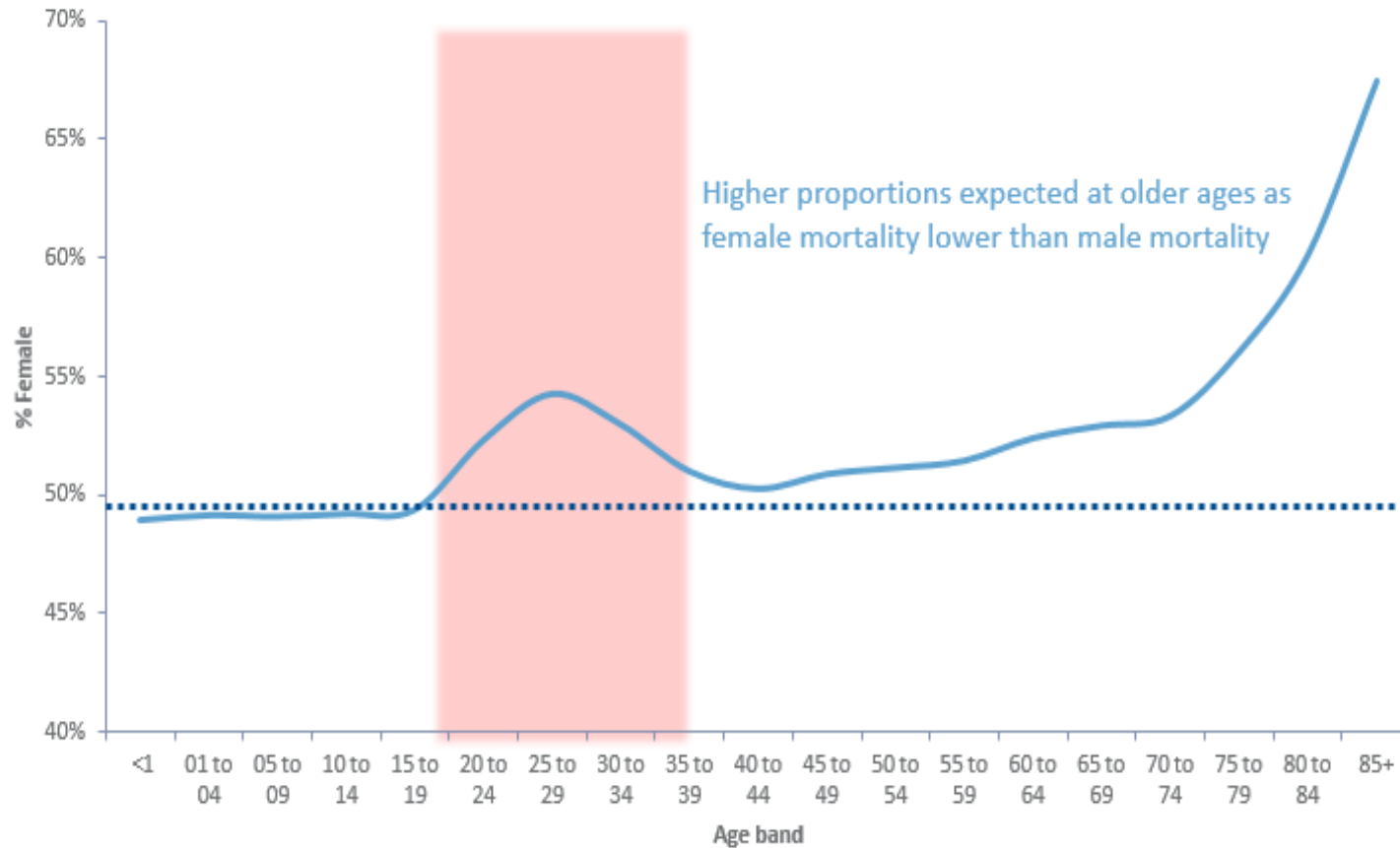
## Change from 2002 to 2013



# Adverse Selection by Age

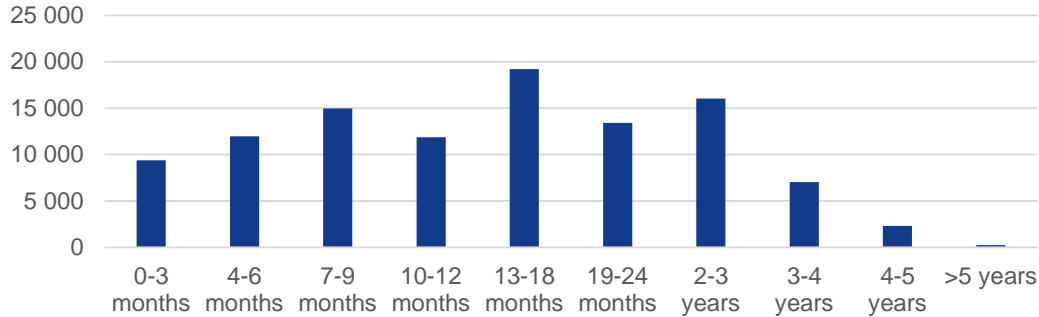


# Adverse Selection by Gender



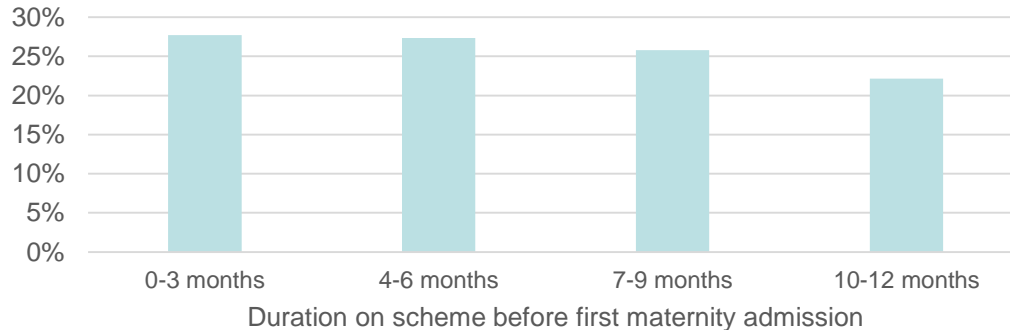
# Adverse Selection by Gender

Duration on scheme before first maternity admission (2008 to June 2013)



45% of all maternity events are for members who have been on the scheme for  $\leq 12$  months

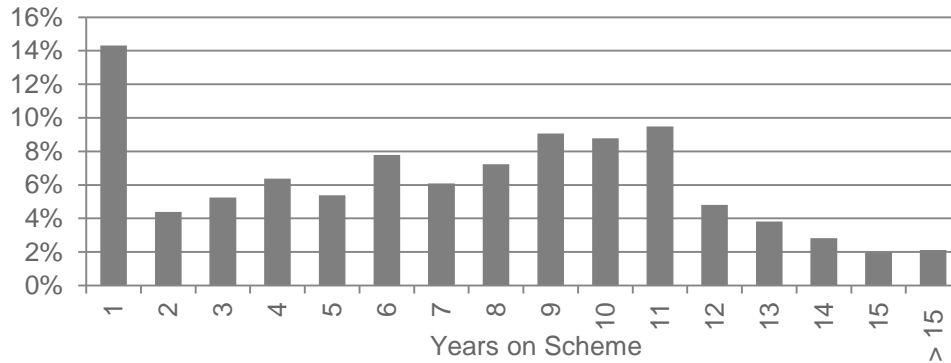
1-year withdrawal rate of lives who joined <12 months before maternity admission



26% of these leave the scheme within 12 months of the maternity event

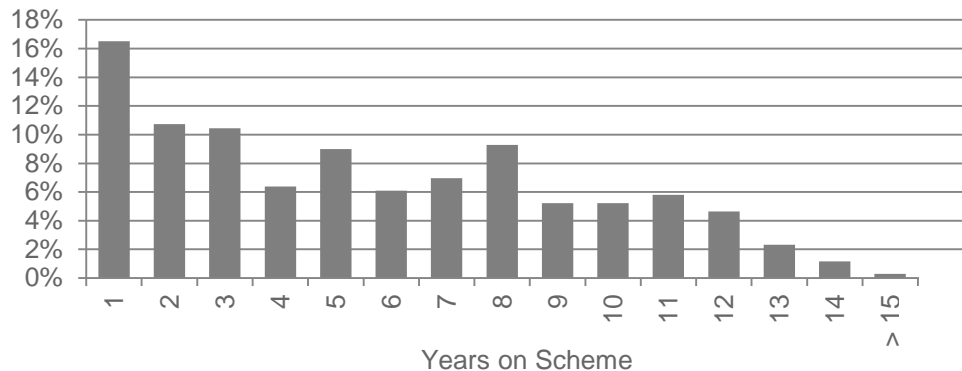
# Adverse Selection by Biologics Claimants

## Duration on Scheme – Musculoskeletal conditions



14% who claimed biologics for musculoskeletal conditions had been on the Scheme for <1 year

## Duration on Scheme – Multiple Sclerosis (MS)



17% who claimed interferon had been on the Scheme for <1 year

# Demand side inflation

In summary there is a trade-off:

Guaranteed  
acceptance to a  
medical scheme

VS

Anti-selection  
associated with  
voluntary membership

- Cost of demand side inflation of 2.9% per year
- Represents 70% of excess inflation



# Supply side inflation

# Supply side inflation

This is the year on year inflation that is not associated with the clinical need for healthcare services

- Supply side inflation is estimated at 1.3%
- Represents 30% of excess claims inflation

Attributable to the decisions and actions of health professionals, which are in turn influenced by changes in the supply of other factors such as hospital beds or the entry of new medical technologies

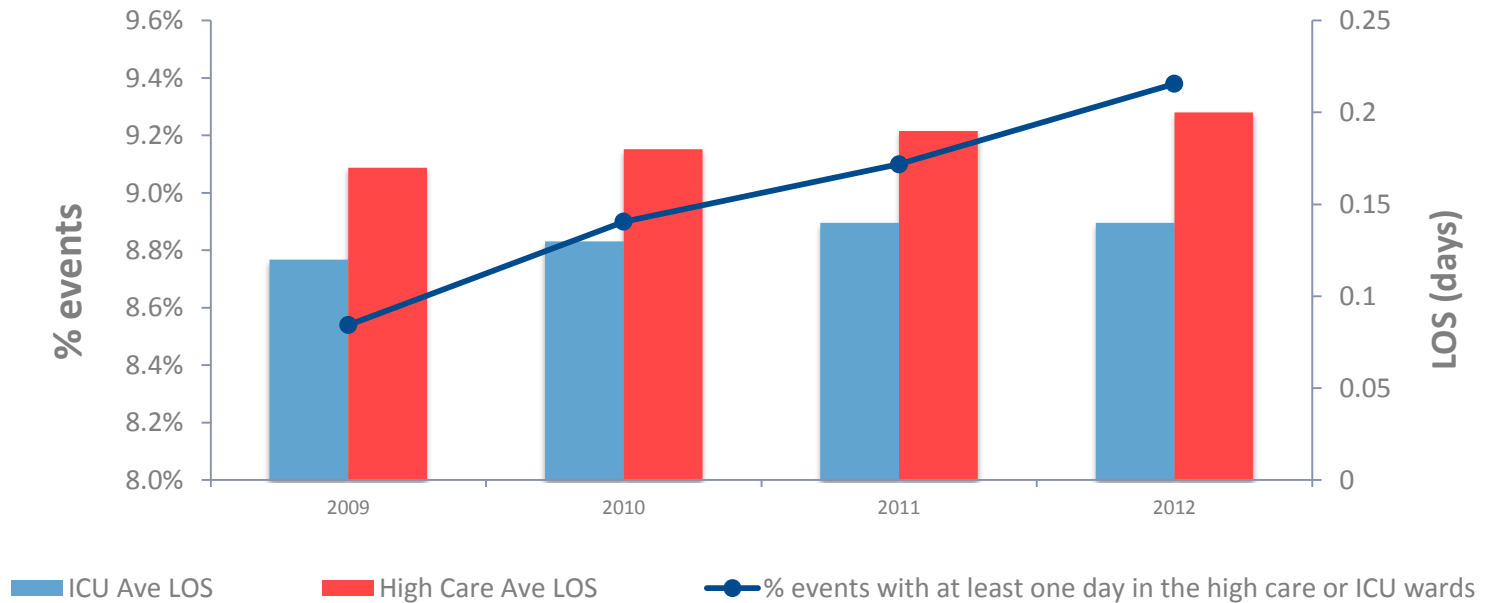
Main drivers of supply side are:

- New medical technologies
- Increased radiology and pathology investigations
- Health professional billing and coding optimisation



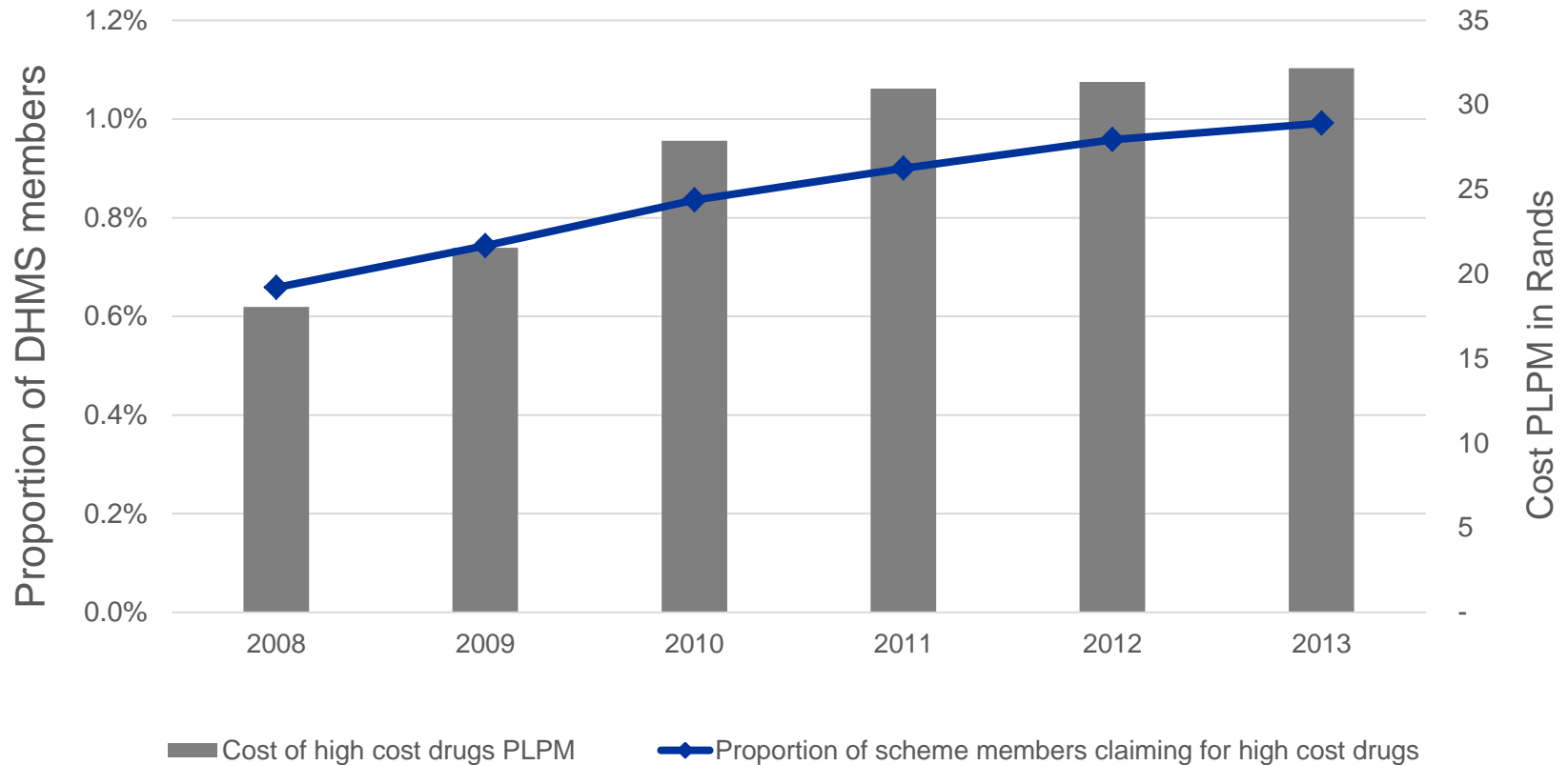
# New high cost technologies

Increasing use of ICU and High Care wards



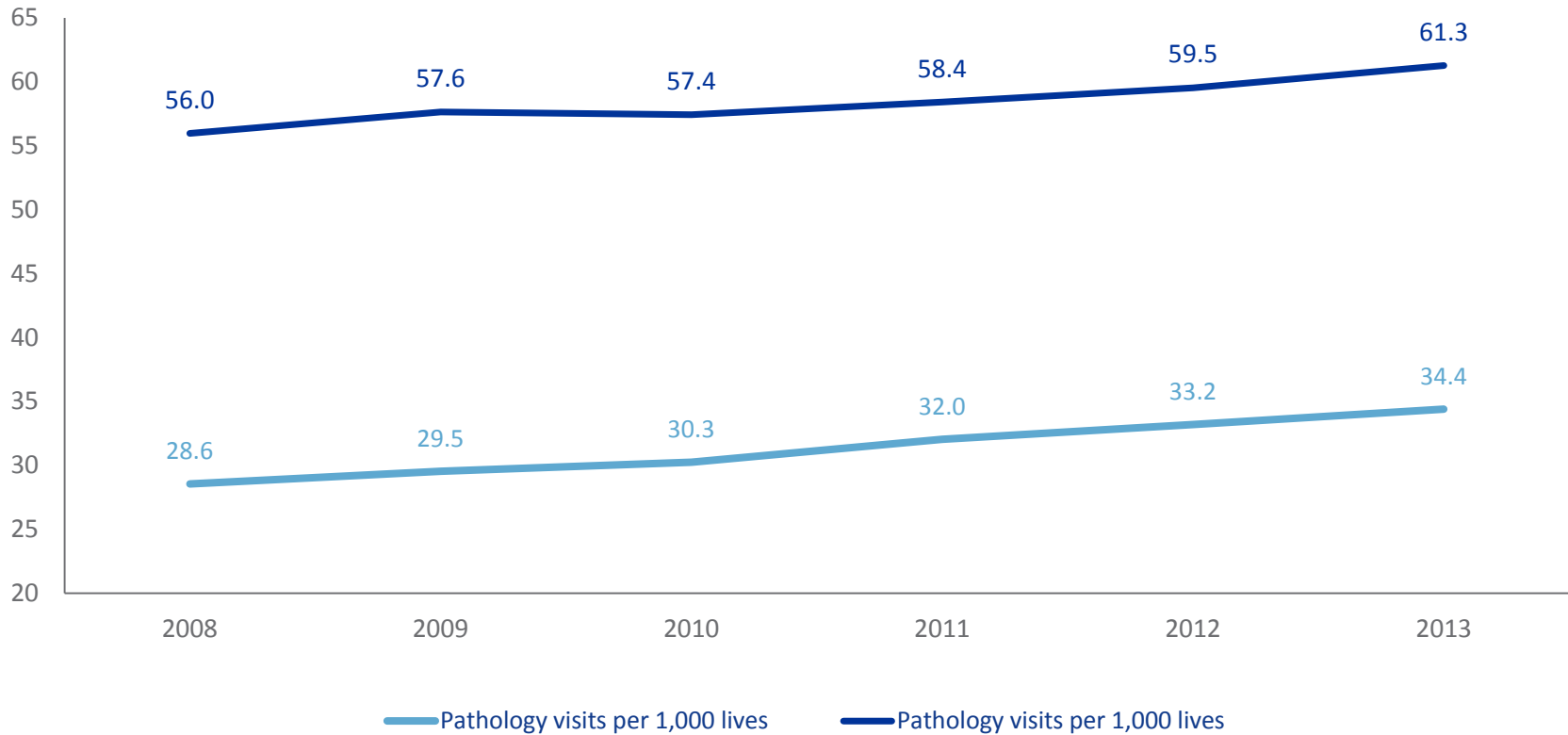
10% increase in use of high intensity care in hospital

# New medical technologies – High Cost Drugs



# Increased use of radiology and pathology

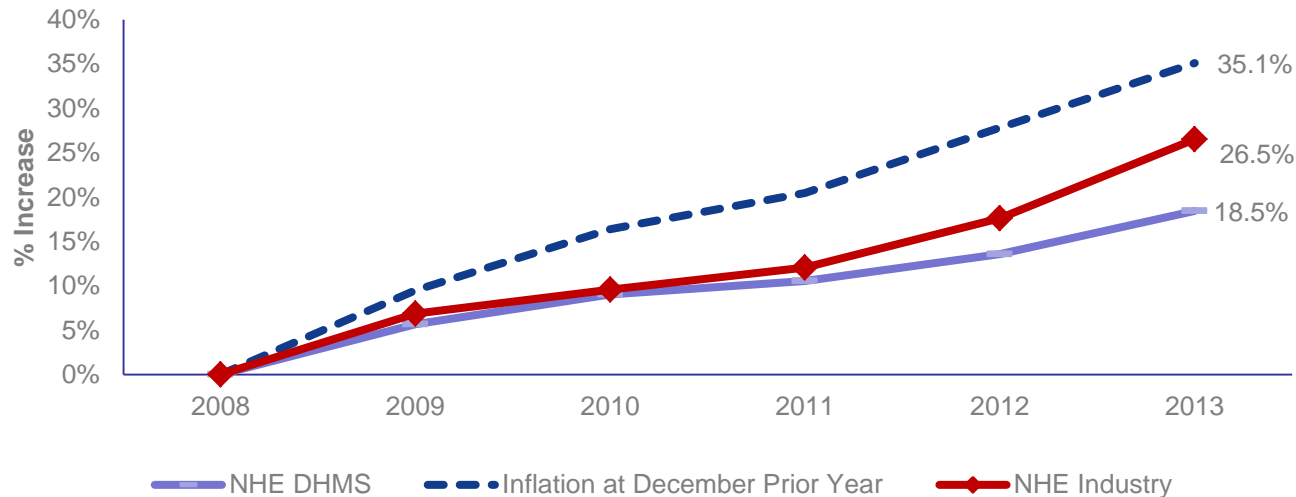
Pathology visit rate per 1,000 lives



# Non-health expense inflation

The NHE component of medical schemes costs comprises the following main elements:

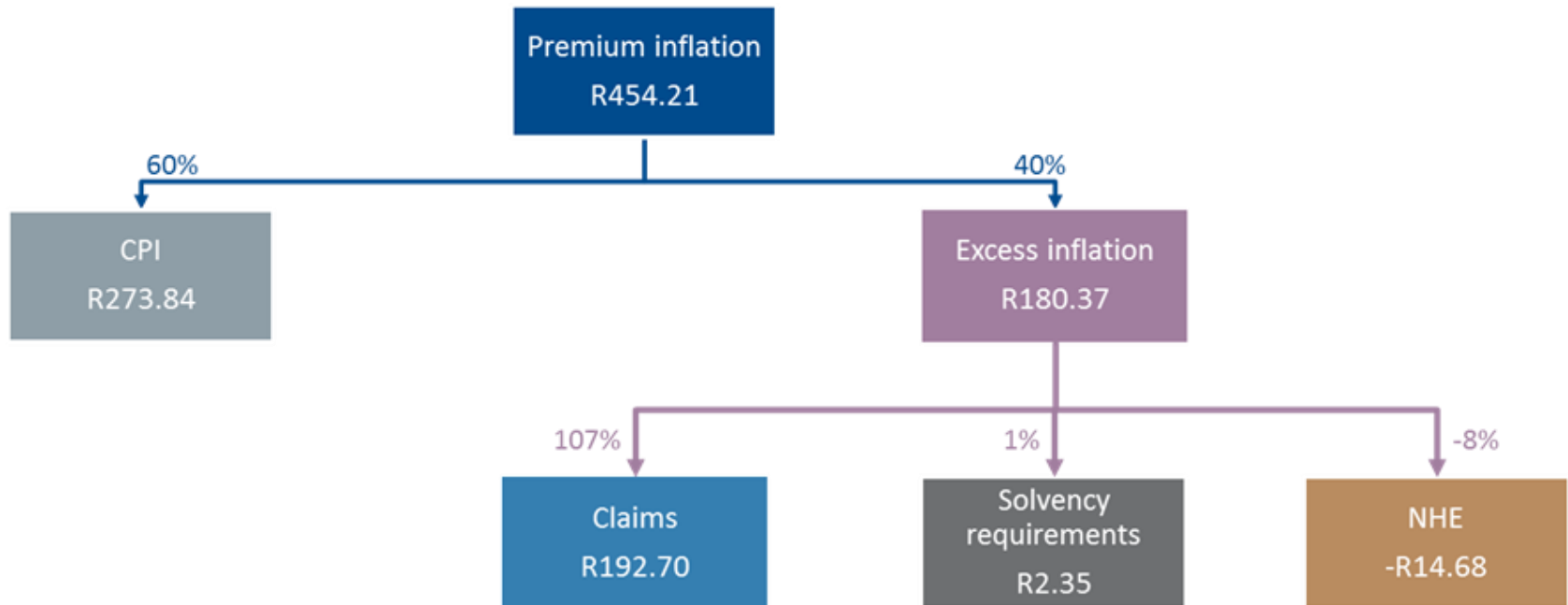
- Administration and managed healthcare fees
- Broker fees
- Other expenses such as trustee remuneration, and scheme office fees



**NHE is  
deflationary**

# Components of inflation for medical schemes

Components of premium increases between 2008 and 2013 in Rands per life per month (PLPM)



# Low Cost Benefit Options



# Medical inflation drivers

Key assumptions: LCBO benefits restricted to **primary care benefits & Full PMB package not enforced**

## Drivers of volume / utilisation

## Implied solution for LCBO context

Claims  
inflation

① Demographics (main driver)



• **Mandatory** risk pools

② Supply side  
(Secondary driver)



• **Tight** networks

Premium  
inflation

③ Solvency  
requirements



• **No need** for 25% solvency requirement

# LCBO benefits



- Package of **minimum primary care benefits** is possible to construct



- Including **GP visits** and **medication**



- With **very low** administration fees



- For between **R250 and R300** per member per month

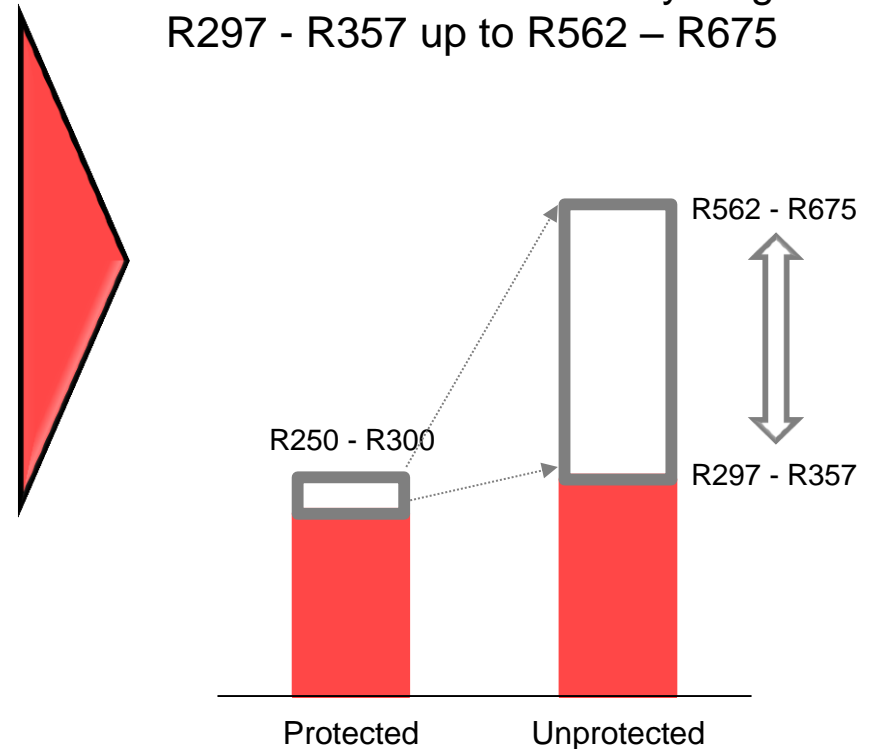


- Important caveats:
  - Can only be done if the rest of the **regulatory framework** is in place
  - **Cannot** provide cover at cost
  - But only within **tight network & formulary**
  - With **no rights to out-of-network visits at cost**

# To avoid anti-selection & demographically driven inflation

- Open enrolment / guaranteed acceptance **cannot** be offered at the outset
- Critically important to **restrict cover to groups** in formal employment
  - Individuals are 38% more expensive than groups
- Groups must be **reasonably sized** at the outset (say 35+) and only accepted if compulsory for everyone in an income bracket
- And **access to payroll** also needed to avoid selective downgrading and income declaration fraud

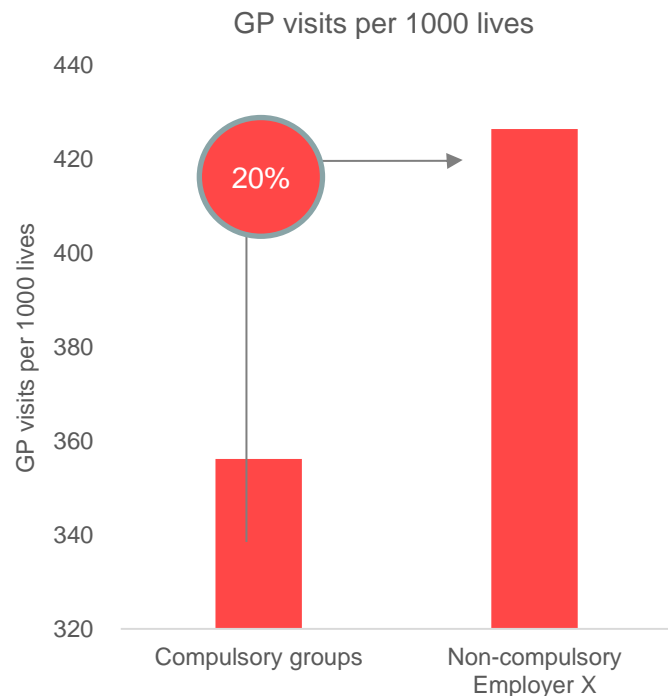
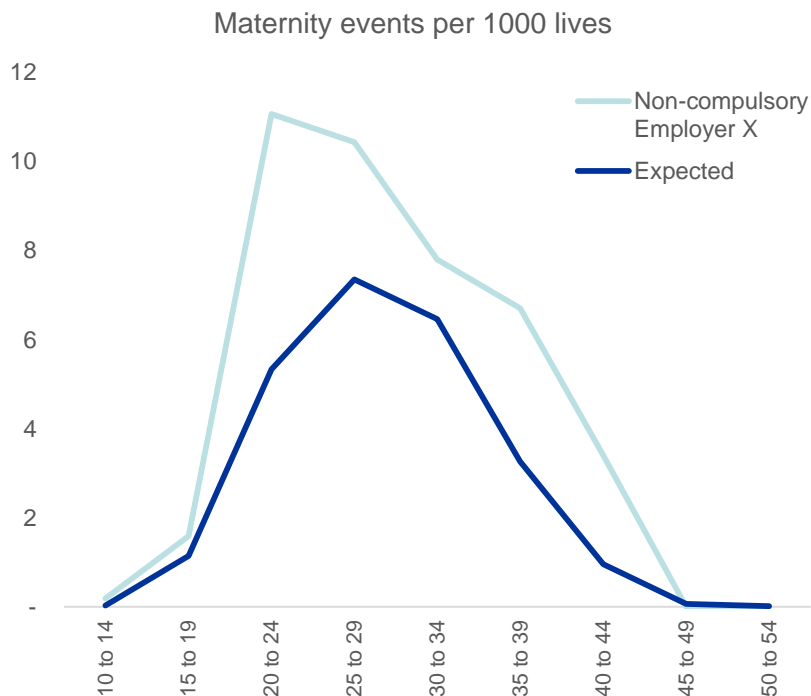
- Without this protection:  
R250 – R300 becomes anything from R297 - R357 up to R562 – R675



# Impact of selection within a large non-compulsory group

The maternity rate on Employer X is 60% higher than average, translating into 55% higher cost per life

GP utilization and cost is 20% higher on Employer X than that on compulsory groups



# To avoid supply side inflation



- **Benefits** can be offered *inside* the network / formulary only



- **Low tariffs / prices** can only be negotiated *inside* the network if members don't have rights to cover at cost *out* of network



- Innovative supply side solutions can only work with **guaranteed volumes**



# To avoid other unnecessary costs

- If a scheme has 25% solvency level
- And provided membership of LCBO does not exceed 20% of total membership base
- There should be no reason for additional solvency requirement
- Until such time as risk based capital is implemented, at which time overall risk based requirements can be evaluated
- Imposition of the 25% requirement means:
  - Required contribution must be divided by 0.75 or multiplied by 1.33 to meet the requirement
  - R250 – R300 becomes R333 – R400

# Conclusion



- An LCBO is within reach for **R250 – R300**



- But LCBO requires a **special regulatory dispensation** to keep it affordable



- **Without protection** against anti-selection, and **with a 25% solvency requirement**, the absolute *minimum* contribution becomes **at least R396**, and may have to increase **up to R800** if there is a high degree of individual anti-selection