



Joint Colloquium of the IACA, PBSS and IAAHS Sections of the International Actuarial Association

Westin Copley Place Hotel, Boston, U.S.A. – 4-7 May 2008

Risk Equalisation in South Africa

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Agenda

- The environment and need for REF
- Basic principles of operation of REF
- Challenges

The environment and need for REF

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Setting the scene

- South African health insurers are non-profit trust funds (“medical schemes”)
- There are more than 120 registered medical schemes
- Some are “restricted membership” (employer based) whilst others are “open”
- We have open enrolment, community rating, prescribed minimum benefits, but no voluntary membership

Setting the scene

- The result is significant differentials in risk profiles between different medical schemes
- As non-profit schemes have no source of capital other than member contributions
- And because high contribution increases simply lead to an actuarial “death spiral”
- There is a great need for Risk Equalisation between medical schemes
- RE Fund currently under development, legislation imminent

Basic principles and operation of REF

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Basic principles and operation of REF

- REF is in respect of prescribed minimum benefits only (most hospital conditions, maternity, treatment and care for 26 chronic conditions, including HIV / AIDS)
 - This avoids the need to adjust for benefit differences
- South African REF is, as far as we know, the government-driven equalisation fund with most comprehensive provision for chronic conditions

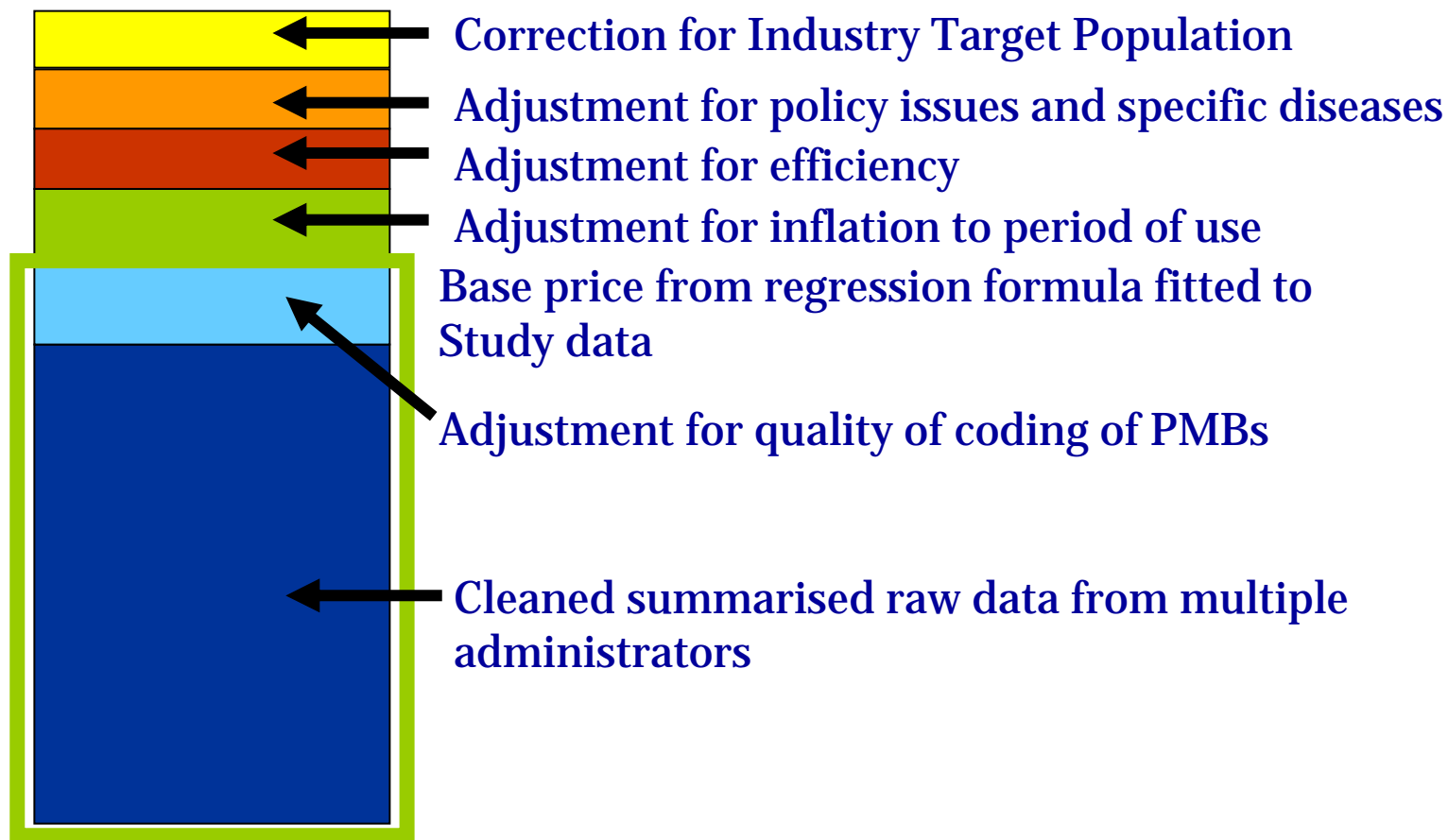
Basic principles and operation of REF

- Equalisation will be on the basis of:
 - Age
 - Chronic prevalence
 - For sufferers of multiple diseases, count most expensive condition once
 - And then allocate to table for multiple conditions
 - Maternity
 - Should we include gender? Still under debate...

Basic principles and operation of REF

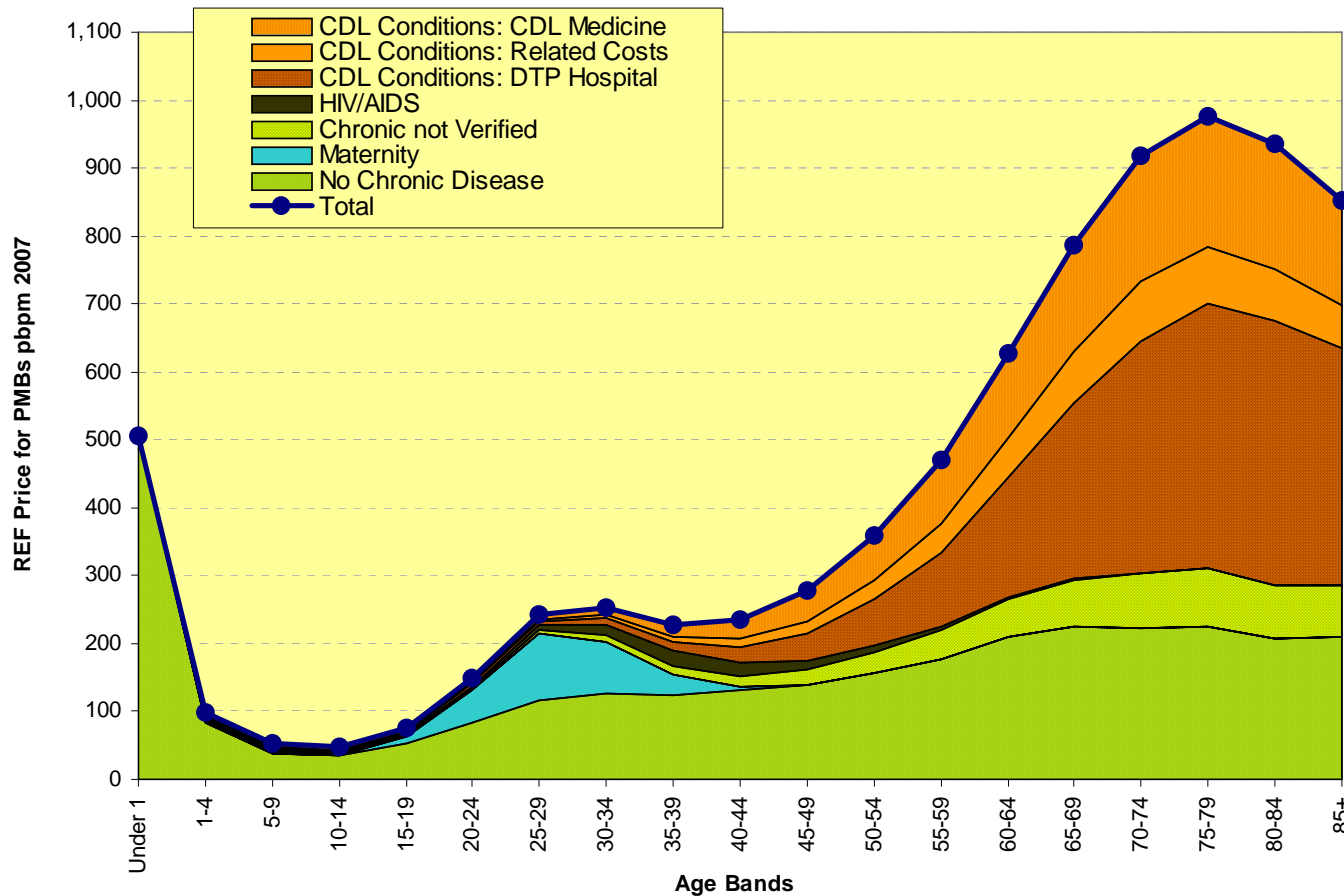
- REF based on table with age on vertical axis and chronic condition (also those with no chronic condition) on horizontal axis
- Each cell contains an industry cost
- Each scheme counts the number of members falling in each cell
 - Based on detailed entry & verification criteria for every chronic condition
 - With some specific rules relating to maternity & multiple conditions etc
- And derive the weighted average cost for the scheme
- If lower than industry community rate – scheme is net payer to REF; if higher – scheme is net receiver

Pricing REF Contribution Table



Source: REF Contribution Table 2007

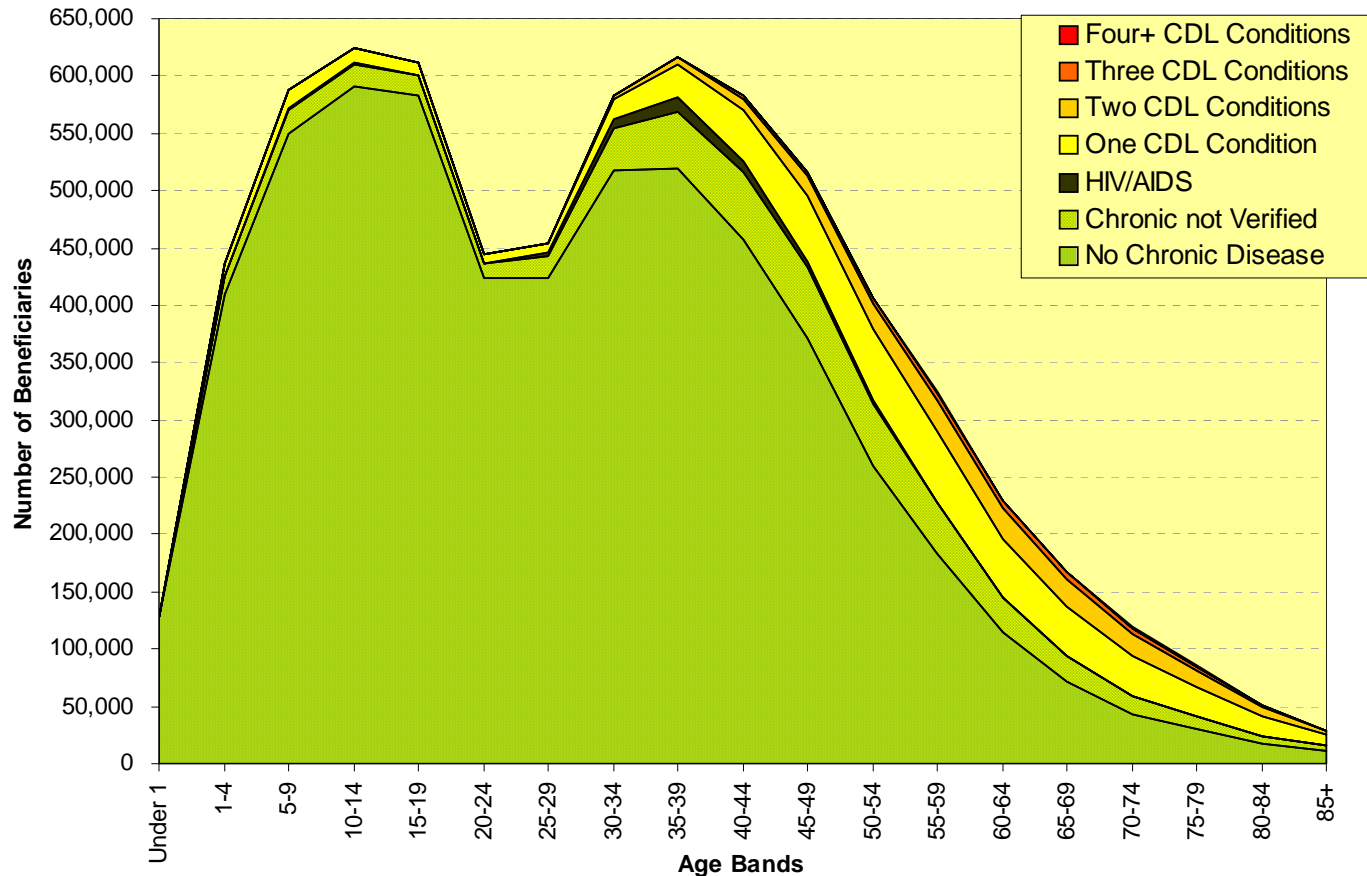
Price by Age of Chronic Disease



Source: REF Contribution Table 2007

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Age profile: evidence of anti-selection



Source: REF Contribution Table 2007

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Challenges

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- Delays with putting regulatory framework in place
- Data quality! ICD-10 coding on claims only compulsory from 2005 onwards
- Extensive work on checking data received from scheme – must avoid “gaming”. Using GLM and cluster analysis to evaluate reported prevalence rates
- Also working on refining package of benefits to be risk equalised
- And working on administrative process of risk equalisation – scheme exposure should be avoided, but tricky in a zero-sum game environment