The Role of Risk Equalisation in Social and National Health Insurance

Professor Heather McLeod
Tuesday 15 May 2007
Agenda

- Transformation to Social Health Insurance
- Risk-Adjusted Cross-Subsidies
- Income Cross-Subsidies
- Moving from Voluntary to Mandatory Cover
- Impact of Chronic Disease on the Price of Healthcare
- Risk Equalisation using Chronic Disease
- Prevalence of Common Chronic Diseases
Transformation to Social Health Insurance
South African Population Pyramid

Total population mid-2006 estimated to be 47.4 million people. 42.6% are under age 20 and 61.5% are under age 30. Only 5.0% of the population are over age 65.

Source: StatsSA Census 2001 and mid-year 2006 population estimate
75.4% of the population do not earn any income.
40.3% live in a household where there is no-one who earns an income.
54.0% of the working age population do not earn any income.

Source: Extracted for DoSD using EPRI GHS 2005 data
### Healthcare Inequality in SA

<table>
<thead>
<tr>
<th></th>
<th>Public Sector</th>
<th>Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population Covered</strong></td>
<td>38 m (84.5%)</td>
<td>6.9 m (15.5%)</td>
</tr>
<tr>
<td><strong>Total Expenditure on Health</strong></td>
<td>R31.6 bn</td>
<td>R43.3 bn</td>
</tr>
<tr>
<td><strong>% of Total Expenditure on Health Attributable to this Sector</strong></td>
<td>42.2%</td>
<td>57.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Availability of Personnel per 10,000 People</th>
<th>Doctors</th>
<th>Nurses</th>
<th>Pharmacists</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Sector</strong></td>
<td>2.9</td>
<td>32.4</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Private Sector</strong></td>
<td>12.5</td>
<td>56.9</td>
<td>12.6</td>
</tr>
</tbody>
</table>

Source: ABSA Healthcare 2004
Social Security System for Healthcare

Contributory
- Voluntary Medical Schemes
- Contributors only
- Contributors and non-contributors
- Social Health Insurance
- National Health Insurance

Mandatory

Non-Contributory
- Means tested
- Social transfers
- Disability Grants
- Road Accident Fund
- Universal
- In-kind benefits
- Free care for mothers and children under age 6
- Means-tested care in public hospitals

Source: adapted from Social Security Committee Report 2002 (Taylor Committee)
Early History of Health Cover in SA

- WHO: “A scheme for a national health service broadly similar to the British model was proposed in South Africa in 1944, comprising free health care and a network of community centres and general practitioners as part of a referral system, but was not implemented.”
- By 1960, 169 schemes covering nearly 1 million people – “urban, middle-class white population”. Coverage 80% of “eligible whites.”
- First Medical Schemes Act in 1967 ensured schemes were run on the basis of solidarity principles.
- Insurers became significantly involved in healthcare in early 1990s.

Sources: World Health Organization and Department of Health
Mutuality and Solidarity

- **Mutuality**: is the normal form of commercial insurance... Applicants contribute to the pool through a premium that relates to their particular risk at the time of the application, ... The pooled funds then pay those insured who suffer losses in accordance with the scale of their losses ...or in accordance with the agreed sum assured... A private commercial insurance market requires mutuality.

- **Solidarity**: is a concept that has some similarity to mutuality, but also a profound difference. The similarity is that losses are paid according to need, and the difference is that contributions are made not in accordance with the risks that each applicant brings .., but perhaps according to ability to pay, or just equally. Social security, social insurance or national insurance ... some measure of universality and some measure of compulsion.

Source: David Wilkie, *Mutuality and Solidarity: Assessing Risks and Sharing Losses*
A significant return to **solidarity** principles from 1 January 2000.
Solidarity - Mutuality - Solidarity

- DoH: “The history of the medical schemes movement and its regulation shows a drift from solidarity principles which defined the original schemes, to individualising health cover.”
- “By 1999 no open scheme was permitting anyone over the age of 55 to join as an individual member.” “Life-time exclusions for pre-existing conditions, and age-rating and/or experience rating of members.”
- “.. vulnerable groups excluded from cover (old and those with chronic conditions); medical costs continued to rise (due to retention of fee-for-service reimbursement); non-medical costs driven up (profit-taking and hidden commission costs).”
- The Melamet Commission reported in the last month of the apartheid government. Further deregulation recommended: “insurance products represented the best way of providing health cover”.
- Rejected by newly-elected democratic Government, replaced by strategic direction from 1995 National Health Insurance Committee of Inquiry: **Social Health Insurance** under solidarity principles.
National Health Act, 2003

- ... recognising the socio-economic injustices, imbalances and inequities of health services of the past
- ...the right of everyone of access to health services
- ...reasonable measures, within available resources to achieve the progressive realisation of these rights

- .. to establish a national health system which encompasses public, private and non-governmental providers of health services; ...

Progress measured against goals of equity, efficiency and access to the healthcare system
Policy Flow in Medical Schemes since 1994

- Open enrolment
- Community rating
- Prescribed Minimum Benefits

Medical Schemes Act 1998 (effective January 2000)

- Replace private sector tax subsidy with per capita subsidy
- Risk-adjusted cross-subsidies to medical schemes
- Income cross-subsidies through social security tax
- Mandatory cover for all employed

Social Health Insurance
Future Healthcare Financing

Source: SHI Model Based on Census 2001
Coverage by Household Income

Source: SHI Model Based on Census 2001
Structure of South African Health System
CURRENT

Source: Ministerial Task Team on SHI 2005, using Kutzin framework
### Structure of South African Health System

#### Social Health Insurance

**Source:** Ministerial Task Team on SHI 2005, using Kutzin framework
**Structure of South African Health System National Health Insurance**

<table>
<thead>
<tr>
<th>Revenue collection</th>
<th>National Insurance</th>
<th>Out-of-pocket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pooling</td>
<td>Risk Equalization Fund</td>
<td>No pooling (individual purchasing)</td>
</tr>
<tr>
<td>Provincial Health Departments</td>
<td>Other governmental</td>
<td></td>
</tr>
<tr>
<td>Private insurance (Medical Schemes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private providers (including public hospitals)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simple step from SHI to NHI: only a difference in revenue collection. However requires substantial increase in employment to be affordable.

Source: Ministerial Task Team on SHI 2005, using Kutzin framework
Risk-Adjusted Cross-Subsidies
Loss of Efficiency through Cream Skimming

- “The larger the predictable profits arising from cream skimming, the greater the chance that cream skimming will be more profitable than improving efficiency.”

- “At least in the short-run, when a health plan has limited resources available to invest in cost-reducing activities, it may prefer to invest in cream skimming rather than in improving efficiency… Efficient health plans, who do not cream skim applicants, may lose market share to inefficient health plans who do, resulting in a welfare loss to society.”

  Van de Ven et al (March 1999, p.13)

- “Risk-equalisation should improve efficiency and reward those with lower costs.”

- “To achieve this risk-equalisation models must be based on objective risk factors or diagnostic information, not actual treatment, utilization or expenses incurred.”

Source: DoH Social Security Report 2002
Intention of the Risk Equalisation Fund (REF)

- The primary objective of the Risk Equalisation Fund in South Africa is to protect the environment of open enrolment and community rating.
- The purpose is to prevent competition between medical schemes from occurring on the basis of risk selection.
- In doing so it will encourage competition between medical schemes on the basis of cost and quality of healthcare delivery.

Source: Department of Health, 2002
Social Health Insurance

Risk Equalisation Fund

Government

Universal subsidy

Risk- equalised subsidy

Medical Scheme

Member

Income-based contribution

Medical Scheme

Employer

Community-rated Contribution

Existing tax expenditure subsidy
Risk Definition

- Thus the REF will attempt to equalise the predictable financial consequences that are introduced to the medical schemes environment in view of the requirements of community rating, open enrolment and PMBs.

- In the context of the REF, risk is defined as:
  - the expected and predictable significant deviation from the theoretical national community-rated price for groups of beneficiaries with a measurable set of risk factors
  - the national community-rated price is the reasonably efficient achievable price for the common set of benefits.

Source: FCTT, 14 October 2003
DTP Hospital covers some 290 diagnosis-treatment pairs, largely hospital-based. CDL Medicine covers medicine for 25 chronic conditions and HIV/AIDS. Related costs is out-of-hospital care and diagnosis for the above.

Source: REF Contribution Table 2007
Age Profiles
Largest Open Schemes
Industry Community Rate for March 2006 is R224.90
Isolated REF in Shadow Period

Government

Existing tax expenditure subsidy

Member

Employer

Direct Contribution for full cost of package in scheme

Medical Scheme

Risk Equalisation Fund

Scheme levy for admin costs of REF

Risk equalisation transfers for PMBs

PMBs Above PMBs
Risk Factors in Formula

- **Age**
- **Deliveries**
- **Gender** (from 2007)
- Not ethnicity. Not geographic region
- Not open/restricted scheme
- Not primary member, marital status or family size
- Not income
- **Measures of chronic disease burden:**
  - Numbers with each CDL disease
  - Numbers with multiple CDL diseases
  - Numbers with HIV/AIDS on ARV therapy
- Not high cost, low frequency conditions.

Source: FCTT 5 November 2003; RETAP 2007
## Expected Industry REF Community Rate [Base 2005, Use 2007]

**Per Beneficiary Per Month**

<table>
<thead>
<tr>
<th>Chronic Disease List (CDL) Conditions</th>
<th>2</th>
<th>3</th>
<th>4 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Conditions</td>
<td>CC2</td>
<td>CC3</td>
<td>CC4</td>
</tr>
<tr>
<td>All Ages</td>
<td>1,094.88</td>
<td>332.95</td>
<td>1,074.78</td>
</tr>
<tr>
<td>Amount is per delivery per month. Add to amounts obtained from columns 1 &amp; 2. Not applicable to Under 1’s.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Modifier for Maternity**

- All Ages: 1,515.36
- Use only once per delivery, not monthly.

**Modifier for number of chronic conditions**

- 1: 194.88
- 2: 332.95
- 3: 1,074.78

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### Expected Industry REF Community Rate

<table>
<thead>
<tr>
<th>Disease</th>
<th>2</th>
<th>3</th>
<th>4 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DYS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Under 1</th>
<th>257.05</th>
</tr>
</thead>
</table>

**RETAP**

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### Combined Female and Male Tables for Comparison

| Modifier | HIV/AIDS | 10,815.39 | 10,768.22 | 10,765.18 | 10,803.15 | 10,784.17 | 10,784.17 | 10,784.17 | 10,939.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 | 10,971.17 |
|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| CC2      | 1,046.94 | 973.94    | 1,104.37  | 1,133.27  | 1,087.01  | 1,163.31  | 1,163.31  | 1,163.31  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  |
| CC3      | 332.95    | 297.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    | 332.95    |
| CC4      | 1,074.78  | 973.94    | 1,104.37  | 1,133.27  | 1,087.01  | 1,163.31  | 1,163.31  | 1,163.31  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  | 1,076.01  |

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### Chronic Disease List (CDL) Conditions

- **No CDL Diseases**
- **Under 1**
- **1-4**
- **5-9**
- **10-14**
- **15-19**
- **20-24**
- **25-29**
- **30-34**
- **35-39**
- **40-44**
- **45-49**
- **50-54**
- **55-59**
- **60-64**
- **65-69**
- **70-74**
- **75-79**
- **80-84**
- **85+**

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### Notes

- The actual Industry Community Rate for each payment period is determined according to the REF Grids that are approved for shadow payments.
- The table includes contributions for the REF Community Rate, broken down by age bands and chronic disease conditions.
REF Grids in Shadow Period

- **The REF Grid Count** gives the cell to which each beneficiary in the option is allocated. The total number of beneficiaries sums to the number in the option. This table is used to obtain the amount payable by the REF to the scheme.

- **The REF Grid Prevalence** gives the prevalence of each condition. For example, a beneficiary with asthma and hypertension is counted in both columns. The total therefore exceeds the number of beneficiaries in the option by the extent of multiple CDL conditions. This table is used for research purposes and to enable comparison of prevalences to published medical literature.
Haemophilia Rate per 1,000

Over-reporting of HAE by 9 schemes resolved.

Problems with one scheme remain.

Risk Equalisation Fund
Income Cross-Subsidies
Universal Per Capita Subsidy

Direct subsidy per person equal to public sector subsidy

Remove existing tax expenditure subsidy

Risk Equalisation Fund

Scheme levy

Risk equalisation transfers

Medical Scheme

(PMBs - subsidy)

Above PMBs

Direct Contribution for balance of PMB cost and packages above PMBs

Government

Member

Employer
Problems with Current Pillar 1 Subsidy for Healthcare

Married, Spouse not earning, 2 children

- Monthly Amount

- No Income
- R2,000 pm
- R2,500 pm
- R3,000 pm
- R4,000 pm
- R5,000 pm
- R6,000 pm
- R8,000 pm
- R10,000 pm
- R15,000 pm
- R20,000 pm
- R35,000 pm
- R50,000 pm
- Over R50,000 pm

Income too high for fully-subsidised public sector health care. But income too low for tax expenditure subsidy.

Lower income groups receive least subsidy

Higher income groups receive most subsidy
DoH Proposal: Restructured Pillar 1 Subsidy for Healthcare

Every citizen receives same subsidy for basic healthcare.

In the private sector the subsidy is used for the Prescribed Minimum Benefit package, redefined to include primary care (the Basic Benefit Package or BBP).
Social Health Insurance

- **Government**: Direct subsidy per person equal to public sector subsidy
- **Member**: Income-based contribution (PMBs - subsidy)
- **Employer**: Direct Contribution for packages above PMBs
- **Risk Equalisation Fund**: Scheme levy
- **Medical Scheme**: Remove existing tax expenditure subsidy
- **Risk equalisation transfers**

Direct subsidy per person equal to public sector subsidy
Phased Implementation of SHI

- **Current Situation**
  - 6.9 million people. Health tax equivalent: 1.2%

- **Scenario 2: Restructure Pillar 1 Subsidy**
  - Up to 8.3 million people. Health tax equivalent: 1.5%

- **Scenario 3: Social Health Insurance Phase 1**
  - 10.5 million people. Health tax equivalent: 3.1%

- **Scenario 4: Social Health Insurance Phase 2**
  - 13.4 million people. Health tax equivalent: 4.1%

- **Scenario 5: National Health Insurance**
  - Total population. Health tax equivalent: 14.3%
  - NHI is not affordable

Source: Ministerial Task Team on SHI July 2005
Mandatory Contributions

- International Review Panel: split the idea of “mandatory membership” from that of “mandatory contributions”.
- SHI flow of funds envisages mandatory contributions.
- Need to use SARS (tax authorities) to determine income and to collect contributions to SHI.
- Mandatory membership could follow some years later but may not be essential.
Summary of Mandatory Impact as a Percentage of Family Income

Married, Spouse not earning, 2 children

- Very High Income
- High Income
- Medium High Income
- Medium Income
- Average Income
- Low Income
- Below Tax Threshold Income
- Bargaining Council Income
- Below Means Test Income

Impact of Universal Subsidy for groups who did not get TES
Impact of initial income cross-subsidy

Not mandatory under Initial Phase

Source: Analysis for Ministerial Task Team on SHI
Policy Objective and Trajectory

Source: MTT July 2005
Voluntary to Mandatory Cover
Significant female anti-selection in child-bearing years.

Source: StatsSA and REF, mid-year 2006
Anti-selection by Age

Far fewer children and young adults, many more late working age and older lives if full NHI. For SHI, need to consider effect using income bands.

Source: StatsSA and REF, mid-year 2006
Medical Scheme Membership by Individual Income

Clear and strong pattern of membership by income.

Source: EPRI GHS2005
Medical Scheme Membership by Highest Household Income

Clear and strong pattern of membership by Household income.

Source: EPRI GHS2005
Under SHI, many young adults would be included. Whole tail would become younger.

Source: StatsSA and REF, mid-year 2006; EPRI GHS2005 income patterns
Impact on Community Rate of Mandatory Membership

Price of PMBs falls by some 10% on age and gender effects alone. Price falls by some 20% if effects of anti-selection included.

Source: StatsSA and REF, mid-year 2006; EPRI GHS2005 income patterns
Impact on Community Rate of Mandatory Membership

Effects shown in Rand terms.

Source: StatsSA and REF, mid-year 2006; EPRI GHS2005 income patterns
Impact of Chronic Disease on the Price of Healthcare
Prevalence of Chronic Disease

Source: REF Contribution Table 2007
Prevalence by Age of Chronic Disease

Source: REF Contribution Table 2007
Proportion of Chronic Disease by Age

Source: REF Contribution Table 2007
Price by Age of Chronic Disease

Source: REF Contribution Table 2007
Proportion of Price by Age

Source: REF Contribution Table 2007
The burden of heart disease is clear.

Source: REF Contribution Table 2007
Chronic Disease in Price of PMBs

Risk Equalisation Fund

Source: REF Contribution Table 2007
Price by Age of Chronic Disease Using HIV/AIDS Prevalence in 2010

Source: REF Contribution Table 2006
Components of PMB Price by Age

Source: REF Contribution Table 2007
Components of PMB Price

Source: REF Contribution Table 2007
Risk Equalisation using Chronic Disease
Concept of “Treated Patient”

- Because the REF is fundamentally based on financial risk rather than medical risk, the entry criteria/definition should be aimed at the “treated patient” rather than the early or “pre-clinical stages” of a medical condition; and

- That the definitions/entry criteria would primarily be used for new patients while currently treated chronic medical scheme patients will not be subjected to these criteria – e.g. it would be medically irresponsible to stop a well-controlled HIV/AIDS, hypertensive or cardiac failure patient’s treatment to prove that he/she meets the REF definition/entry criteria.
Role of Entry and Verification Criteria for REF

Clinical standards

- Common Clinical Standards for Diagnosis
- Use of ICD-10 code

Counting for and Verification of REF Grids

- Counting beneficiaries for the REF Grids
- Verification of new chronic beneficiaries
- Verification of existing chronic beneficiaries
Definition of TREATED and CASES

- Two sets of data were extracted:
  - The first used the full Entry and Verification definitions and was called the “Treated Patient Data set” or “TREATED”.
  - The second set was extracted without the test for “treated patient” and was called the “Total Cases Data set” or “CASES”.

- While this meant a doubling of the extractions, it provided a powerful tool to investigate potential prevalence and cost if compliance improves and to be able to determine the impact if more people in future fall within the definition of “treated patient”.

- Most important comparison for REF financial sensitivity is CASES Count vs. TREATED Count. Difference represents “bubbling under” for each disease.

Source: REF Study 2005
Amended April 2007 to use “treatment month” not “payment month” as the latter is being gamed.

It is possible to spread payment for a multi-line script over two months and hence more people are identified as “treated patients”.

TREATED requires Proof of Treatment
Ranking of Diseases in Multiple Disease Rules

- Effectively uses an approach similar to hierarchical co-existing conditions methodology.
- Order of diseases from REFCT2007 using gender as a risk factor.
- Only one disease in the following groups may be selected. Highest cost disease in **bold**:
  - respiratory: **COP**+AST+BCE
  - cardiac: **CMY**+CHF+IHD+DYS+HYP
  - renal: **CRF**+HYP
  - gastro: **CSD**+IBD
  - diabetes: **DM1**+**DM2** (always default to DM2)
  - mental: **BMD**+SCZ
  - neuro: **MSS**+BMD+EPL
  - skeletal: **SLE**+RHA (other way around in REF Study 2002)

Source: REF Study 2005
Hypertension (HYP)

Impact of renal and cardiac rules at older ages.

Cardiac: CMY+CHF+IHD+DYS+HYP
Renal: CRF+HYP

Source: REF Study 2005

All with HYP diagnosis
After cardiac and renal multiple rules
Allocation to highest cost disease. Potential HYP count if compliance improves.

REF Grid Count and REF payments: "treated patient"
Price by Age of Chronic Disease

Industry Community Rate for PMBs is R257.05 pbpm

Source: REF Contribution Table 2007
Impact if all Chronic become Verified

Industry Community Rate increases from R257.05 to R332.75 pbpm

Source: REF Contribution Table 2007
Sensitivity of the REF Table

- The Community Rate would be highly unlikely to reach the higher levels. As more chronic people become “treated patients”, so the values for each disease should be altered to be closer to the CASES results.
- The average cost comes down as people are added with less serious disease.
- This is a timing issue – the adjustment to the REF Table takes place annually while there could be an increase in the number of “treated patients” during the year.
- Schemes only need to consider changes in industry numbers of “treated patients” during a year, until the next revision of the REF Table.
Prevalence of Chronic Disease
Hypertension Prevalence

Impact of renal and cardiac multiple rules at older ages.

Source: REF Study 2005
Hyperlipidaemia Prevalence

Risk Equalisation Fund

Not included in cardiac multiple rule. Levels similar to 2002. Predominantly male.

Source: REF Study 2005
Diseases now combined but prevalence exceeds CHF+CMY in 2002.

Source: REF Study 2005
Asthma Prevalence

Predominantly male in childhood, female in adult years.

Source: REF Study 2005
### COPD Prevalence

**Late onset. Predominantly male.**

Source: REF Study 2005
Diabetes Type 2 Prevalence

Similar to previous levels. Predominantly male.

Source: REF Study 2005
Advice on Developing a Risk Equalisation System

- Obtain clear objectives for the healthcare system and RE
- Define and price a common benefit package
- Choose broad methodology and check economic impact
- Set criteria for risk factors
- Research and determine impact of risk factors
- Determine formula
- Peer review: local and international
- Implementation issues: governance, accounting, timing, data flows, money flows, legislation, politics …
- Consult, consult, consult
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