The purpose of this series of policy briefs on National Health Insurance (NHI) and the related IMSA web-site is to put in the public domain material and evidence that will progress the technical work of developing a National Health Insurance system in South Africa. This includes tools for costing NHI and evidence on where savings could be achieved in moving to a future mandatory system with universal coverage.

This policy brief deals with research on the issue of affordability of health insurance in South Africa, whether in voluntary medical schemes or mandatory NHI. The levels of income in the country are explored, followed by studies of the impact of direct and income cross-subsidies on the affordability of health insurance. A methodology is presented for exploring the effects of reform on families and the effect on affordability of the proposed health insurance reforms of 2005 is demonstrated.

1. Income and Social Security in South Africa

The pie chart below shows that 74.3% of the total South African population of 48.687 million in 2008a have no earnings. Almost one quarter have no earnings but are receiving some form of social security payment, with the dominant forms being the Old Age Pension and the Child Support Grant. Roughly one quarter are working and earning, but only 9.0% earn above the tax threshold. At best, if all those who did not provide income data are also earning above the tax threshold, the total might be 10.7% of the population.

![Figure 1: Income and Social Security in South Africa](image)

*Source: using data from GHS2008 from StatsSA*

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*a Using the General Household Survey of 2008 (GHS2008) from StatsSA*
There is a strong pattern by age and gender to these findings, as shown below. These slides as well as the underlying data are on the IMSA NHI web-site\(^b\) under Resources for this Policy Brief.

Figure 2: Income and Social Security in South Africa
Source: using data from GHS2008 from StatsSA

Figure 3: Income and Social Security in South Africa, proportion by age-gender band
Source: using data from GHS2008 from StatsSA

As women access the Old Age Pension earlier (from age 60) and also tend to live longer, there are more women than men at older ages receiving social security. The retirement age will be equalised at age 60 for men and women from April 2010. There are more men than women earning an income and also earning above the tax threshold of R3,833 per month (R46,000 per annum) for those under age 65.

\(^b\) [http://www.innovativemedicines.co.za/national_healthInsurance_library.html](http://www.innovativemedicines.co.za/national_healthInsurance_library.html)
2. Income and Medical Scheme Membership

In the years from 2005 to 2007 the General Household Survey data severely under-counted the numbers on medical schemes. However GHS2008 has an identical estimate to that produced using figures from the Council for Medical Schemes and the ASSA2003 population in the IMSA NHI Policy Brief 2. In 2008, 15.9% of the population were on medical schemes.

The graph below uses the same broad categories of income and social security as before, but now compares those in medical schemes with those without health insurance. The figures are also shown in the table that follows.

![Figure 4: Income and Social Security by Medical Scheme Coverage, proportion by age-gender band](image)

Source: using data from GHS2008 from StatsSA

Of interest in the graph above is that there are people earning below the tax threshold who are members of medical schemes. They may either be receiving a significant subsidy from the employer to be on a scheme or may be the lower earning spouse of a member.

There are a surprising number of people on social security who are on medical schemes in the GHS2008 data. This alters our perception and bears further examination. The may have had full medical scheme coverage in retirement from previous employment or marriage, for example. In earlier GHS studies, like GHS2005, there had been confusion between the social security grant for old age and private old-age pensions.

<table>
<thead>
<tr>
<th>Health Insurance Status</th>
<th>Income and Social Security Status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No earnings</td>
<td></td>
</tr>
<tr>
<td>Medical Scheme</td>
<td>48.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>None or Unknown</td>
<td>50.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Medical Scheme as percent of Total</td>
<td>15.4%</td>
<td>15.9%</td>
</tr>
</tbody>
</table>
Only 59.5% of people earning above the tax threshold are on medical schemes in the voluntary environment. Note the small but significant numbers reporting that they have health insurance but not earning above the tax threshold. They may either be in receipt of a substantial employer subsidy to join a medical scheme, be a pensioner with heavily subsidised cover or be the spouse of a higher income earner. Included in those with "no earnings" are non-working spouses and children.

The graph below shows the very strong pattern of medical scheme coverage by income level. This pattern has been observed for many years but this is drawn using the most recent data available, from the GHS2008. This graph epitomises the problem of affordability of medical schemes.

For those earning in the highest income groups, medical scheme coverage is about 80% but this declines rapidly to under 40% in the band just above the tax threshold. The group who refuse to give income has relatively high medical scheme coverage, giving credence to the assumption that they may generally be earning above the tax threshold.

While the average coverage is 59.5% for all groups earning above the tax threshold, when turned into the number of people the lower income groups are more significant, as shown overleaf. It is estimated from the GHS2008 that there are 1.772 million people who are earning above the tax threshold and are not covered on medical schemes. This calculation excludes family members.

The GHS2008 figures are in the same “ball-park” as the Council for Medical Schemes (CMS) data on the number of members. The CMS has 3.307 million average membership (principal members) in 2008 compared to 3.566 million who are earning any income and on a medical scheme in the GHS2008 data. The latter includes dual-income households so there is some double counting.

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**Figure 5: Proportion of Medical Scheme Coverage by Income Band**

*Source: using data from GHS2008 from StatsSA*

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\[\text{"Members" in medical scheme terminology refers to the principal member who pays the contribution. The family members and principal members together are called "beneficiaries".}\]
The graph above indicates the potential number of income earners in each band that are not currently on medical schemes. Estimates of how many people might be covered if coverage is expanded in various ways are dealt with in section 5.

3. Studies of Affordability of Minimum Benefits for Lower Income Workers

Since 1994 there have been several studies of affordability of health insurance. The insights into benefit design and delivery mechanisms for improving affordability are large enough to be topics in their own right and are not dealt with here. This Policy Brief focuses on definitions of “affordability” used in the studies and on the use of subsidies and cross-subsidies to improve affordability.

In 1998 Söderlund & Peprah\(^3\) considered how to define a minimum package of benefits in South Africa. Their work led to the Prescribed Minimum Benefits (PMBs) as implemented with effect from January 2000. The authors “attempted to assess affordability of the essential package for currently uncovered formal sector workers and their dependants. Affordability assumptions are crucially based on the nature and degree of cross-subsidies which are legislated for ..... Assuming no income cross-subsidies, however, for workers earning less than around R20,000 per year [R1,667 per month in 1998\(^d\)], the economic burden imposed by the package would be significant.”

\(^d\) Income, numbers of dependants and medical scheme cover were derived from the 1995 October Household Survey (OHS) and inflated to 1998 terms using the Consumer Price Index. R1,667 in 1998 terms is worth of the order of R3,000 in 2008 terms. Söderlund & Peprah's cut-off point for affordability might be interpreted roughly as the tax threshold of today.
Two sources of this economic burden were identified: “either through a significant drop in household income, or by decreasing their employment security because of the high cost transferred onto employers”.

Söderlund & Peprah used 10% of income as a threshold above which premiums for the minimum package of benefits would be unaffordable. The authors caution that “Complete analysis also requires consideration of taxation issues, post-retirement cover and potential double cover where there are two or more employed members of a household. These issues are not discussed further”.

Strategies for improving affordability were discussed: “Three feasible options seem to exist to extend affordable cover for the core hospital package to low-income employees:

- Employers mandate cross-subsidies from high income workers to low income workers within company medical schemes. The loss to high income employees is partially offset by tax advantages of this type of arrangement.
- Government provides a tax-funded subsidy to low-income workers.
- The employer mandate applies only to workers themselves, with optional membership for dependants being allowed for low-income groups.”

The authors also considered that a downward revision in the size of the core benefit package might be needed. In the conclusions, the choice of approach was narrowed to a direct subsidy or a mandated cross-subsidy, saying: “Including workers below [R20,000 per annum] would require either a subsidy from tax revenue, or a mandated cross-subsidy from higher income insured persons. A mandate applying only to those earning R20,000 or more, and their dependants, would expand insurance coverage by about 7.5 million persons.”

In 2001 McLeod, Mubangizi, Rothberg & Fish produced a report on the affordability of the PMBs as implemented and proposed. They considered affordability of the PMB package “in the context of income and subsidy levels”. “Using the October Household Survey 1999, the income levels of existing medical scheme members were investigated and these were compared to the price of the PMB package.” The degree of employer subsidy and the design of the “per capita subsidy for healthcare, recommended in the Taylor Report” impacts on the proportion of income required to be spent.

The authors however did not form “an opinion on what is acceptable income proportion affordable to lower income workers”, saying that this “is an issue on which the opinions of organised labour, the Department of Trade and Industry and forums such as NEDLAC should be obtained.”

The Ministerial Task Team on Social Health Insurance, reporting in 2005, considered the critical impact of family size on affordability. The authors found that “affordability became a severe barrier to medical scheme access where contributions exceeded 16% of per capita income.”

The authors found that: “The South African health system is anomalous in permitting a significant bias against low-income groups who wish to risk pool (i.e. join medical schemes) for health care. This is largely due to the unfairness inherent in the existing [tax] subsidy framework, which arbitrarily drops to zero for designated low-income groups, while rising to very high levels for high income groups.”

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The diagnosis-treatment pairs had been implemented with effect from 1 January 2000 but there were proposals to include cover for a defined number of chronic diseases, the Chronic Disease List (CDLs). These were refined and implemented with effect from 1 January 2004.

Per capita income is derived by taking personal income for all members of the household and dividing by the number of people in the household. The analysis used Census 2001 information, adjusted to 2005 as the base data set. “Incomes were adjusted to 2005 by a pro-rata adjustment of the income groups to fit the 2005 estimated Current Household Expenditure. Income bands were split for all the lower-income groups, with a cross-table created with per capita income on the Y axis and personal income on the X axis. The current medical scheme population was then fitted to the data. This showed that affordability became a severe barrier to medical scheme access where contributions exceeded 16% of per capita income.”
The Ministerial Task Team (MTT) report discussed the impact on affordability for various sequential steps in the envisaged healthcare reform process:

- **Current**: the current environment, was treated as the base case. At the time there were 6.994 million beneficiaries on medical schemes.
- **Pillar 1 Restructured**: a restructuring of the tax break for medical scheme membership, replacing it with the proposed Taylor-Committee per capita or contribution subsidy. This improved affordability in cover for an additional 1.3 million people to 8.277 million covered.
- **SHI 1 scenario**: a compulsory contribution that begins at the tax threshold. This increased affordability for an additional 2.2 million people to 10.511 million covered.
- **SHI 2 scenario**: a compulsory contribution that begins at R2,000 in 2005 Rand terms. This involves a fairly significant improvement in equity, improving affordability for an additional 2.8 million people to a total of 13.369 million covered.
- **NHI scenario**: the whole population of 48.306 million to be covered immediately with contributions paid by all earning any amount. This was found to require an increase of more than 70% in taxation and to be “unaffordable at the existing level of economic development.”

The MTT found that “Affordability of medical scheme cover is highly sensitive to family size in ‘low income’ families. Families with single incomes are obviously also worse off relative to those with dual incomes. Even in [Pillar 1 restructured and SHI 1 scenario] which involve fairly reasonable income transfers, single-income families with four children will need to pay in excess of 20% of family income to obtain cover. [SHI 2 scenario] dramatically flattens the impact of family size, reducing all post-subsidy contributions, for “low income” families to below 8% of family income. This dramatic shift occurs because the ... [income cross-subsidy is extended to “low income” families].”

### 4. Affordability in the Low Income Medical Schemes (LIMS) Process

Dr Jonny Broomberg chaired the Low Income Medical Schemes (LIMS) process which reported in 2006. The focus was on people earning between R2,000 and R6,500 per month. The LIMS process is the most comprehensive study to date of the affordability problem for low income workers.

The final report says: “the fundamental obstacle to expanding coverage to low income households in South Africa remains affordability. Any solution to these problems will have to significantly reduce the net cost of medical scheme premiums to low income households. As ... suggested in the literature review, demand for health insurance cover will be maximized if the level of premiums are similar to households’ expected OOP expenditures on healthcare services.”

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There is some ambiguity in the LIMS income bands. An Honours project at UCT by Keletso Makofane in 2009 said: “The LIMS process was mandated to investigate affordability of medical schemes for households earning between R2,000 and R6,000 per month in 2005 Rands (Broomberg, 2006:140). There is some ambiguity about the target population in the LIMS report however; on page 23 it is written in passing that households in the target population earn between R2,500 and R6,000 per month.

Further on in the report, it is written that “[in order to] avoid creating a situation in which large numbers of people who cannot afford current schemes are excluded because they earn above the LIMS threshold income level”, only people earning a personal income below R6,500 should be allowed membership of LIMS schemes. Further, a member of a LIMS scheme would have to make a declaration that she is the highest earner in her household (Broomberg, 2006:111).

Source: Makofane K. Medical Scheme Options for Low Income Earners in 2009 Actuarial Science Honours project, supervised by Professor Heather McLeod: University of Cape Town; 2009.
“The evidence on current household [HH] expenditure by low income households suggests that current OOP expenditures are in the region of 3%-10% of HH income, depending on the income category examined. The Stats SA surveys indicate that current low income members of medical schemes spend approximately 7%-9% of HH income on medical scheme contributions. These data indicate that current expenditure and affordability levels are well below even the lowest of current medical scheme premium levels. Premiums will therefore have to be substantially reduced from current levels if they are to lead to a material expansion in medical scheme coverage.”

“The LIMS process has examined three broad sets of interventions that could be used to materially reduce the net medical scheme premium costs to low income households. These are:

- Direct subsidies, either from employers, or the State, or both.
- Changes to the scope of benefits offered by medical schemes.
- Reductions in the costs of healthcare goods and services.”

As part of that process, Deloitte developed a demand model to estimate the take-up of LIMS schemes (see Annexure 6 of Final LIMS Report). Deloitte was asked to “investigate the likely take-up rate of the South African population given the interplay between employer and employee costs of medical cover ... and how a potential direct subsidy from Treasury would make a difference to the take-up rate ...”.

“Using an assumption that households will allocate 5% of income to medical scheme cover, and assuming a 50% employer subsidy, the model suggests that a premium of R200 per life per month would bring an additional 1.55 million lives into cover. If the premium could be further reduced to R150 per life per month, estimated new lives under cover increases to 1.85 million. If we assume that household affordability is at 8% of income rather than 5%, a R200 premium would lead to 1.85 million new lives under cover, while the R150 premium would now have a dramatic impact, leading to a projected 3.27 million new lives under cover.”

“This report proposes a new, direct subsidy from the [National Treasury] NT to members of proposed new LIMS schemes or options. Demand modelling suggests that, if set at the right levels and if targeted appropriately, such subsidies would have a significant impact on extending coverage. Assuming a R200 per life premium and the 8% affordability level, a direct subsidy of R25 per life per month would increase the new lives under cover from the estimated 1.85 million without the subsidy, to 3.17 million. Similar impacts are seen using different assumptions as to the NT subsidy and premium levels, although the relationship between the scale of the subsidy and its impact is highly dependent on the actual gross premium level assumed, as well as on the assumed household affordability level. More detailed analysis of the HH survey and other data will be required in order to calibrate the most effective level of subsidy.”

“The cost to the fiscus of subsidies of this level and scale are projected to be relatively modest – in the region of R2 billion (assuming a R200 premium, R50 per life NT subsidy, 8% affordability level). This is similar to the amounts currently budgeted for increased take up by low income families as a result of the recently legislated tax subsidy reforms [of 2006]. These data therefore suggest that direct premium subsidies from NT would represent very cost effective allocation of scare fiscal resources.”

“A direct premium subsidy will be far more effective than other tax based instruments, such as a tax deduction on contributions as used in the current market. These latter instruments have limited impact where tax liabilities are low due to low income and low marginal rates, and where the fundamental barrier is the high cost of the premium itself. International experience suggests that a direct subsidy will be far more effective if targeted at individual scheme members, rather than at employers. This is also more consistent with employment patterns in Consultative Investigation into South Africa, where only half or less of potential members of low income schemes are formally employed.”
5. Affordability and Sequence of Reform Study

One of the most difficult things is to explain complex health reforms to the public, policy-makers and stakeholders. McLeod & Grobler developed a methodology for demonstrating the effect of sequential reforms which was initially published and subsequently presented in visual form. This analysis uses the following key assumptions:

- A family of four: two adults and two children [other permutations can be calculated];
- Earning an illustrative level of income, defined in eight income groups;
- Purchasing typical medical scheme options in the market in 2007;
- One person earning and paying income tax [can be extended to dual-income analysis];
- Using 2008/9 income tax tables, revised to 2007 [other tax tables can be substituted];
- Covers existing Prescribed Minimum Benefits [but allows reform of options as described in Circular 8 of 2006];
- Social security contribution for health of 4.1% of income to cover income-cross-subsidies on PMB package only [from 2007 report on social security reform including post-retirement medical scheme cover]; and
- An additional social security contribution of 0.53% of income for every extra R10 of benefit package above PMBs.

The graphs below illustrates the effect on the family of the steps in the reform process as envisaged by the Ministerial Task Team in 2005, from the current situation to a mandatory system with risk and income cross-subsidies. A spreadsheet of these values is provided under the Resources section of this Policy Brief on the IMSA web-site.

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**Figure 7: Problems with Existing Comprehensive Packages Compared to Packages Actually Chosen According to Income**

In order to illustrate the model, focus on the effect of a family of four with the bread-winner earning just below the tax threshold (category “Formal workers below tax threshold” in the graphs). If that family had purchased a top-end fully-comprehensive package in the market in 2007, they would have had to pay 103% of income which is clearly impossible. Figure 7 shows that these families typically purchase a less-expensive package with more limited benefits, but that this would still cost 44% of income; clearly impossible with a substantial subsidy from the employer.
Figure 8 illustrates the effect of the existing tax break on this family. As they are earning below the tax threshold, they receive no tax break for their medical scheme contributions. The family that benefits most is the “Professional” family with the highest income. Their contributions fall from 6.2% of income (for fully comprehensive care) to only 4.8% of income. This is the reason that so many researchers have argued that the tax break as currently constructed is unfair and inequitable.

Figure 9 illustrated the impact of removing the tax break (as it was in the 2008/9 tax year, taken back to 2007 values). The family earning just below the tax threshold benefits substantially with their medical scheme contribution now costing 28% of income instead of 44% of income. This is still high but closer to what might be affordable if the employer provides (say) a 50% subsidy. The high income “Professional” family sees contributions increasing from 4.8% of income to 5.2%, but this is still lower than having no subsidy when the contribution costs 6.2% of income.

A model such as this can readily be used to look at the impact of proposed changes in tax treatment for different family groups. It is recommended that the following family groups be considered by researchers (as a minimum list):

- Single workers with no families;
- Single mothers with two children;
- A single bread-winner and spouse, with no children;
- A single bread-winner and spouse, with two children;
- A single bread-winner and spouse, with four children; and
- A dual income household, with two children.

A similar set of models for those over age 65 should also be constructed as the tax status changes at age 65. The recommended family constructs are simpler:

- Single pensioner with no family;
- Two pensioners with no family; and
- Two pensioners with two grandchildren (to account for deaths or absence of both parents).

Once the basic model has been established, it can be adapted to consider a variety of reforms. In the graph below, the impact of simultaneously introducing risk-cross-subsidies (the Risk Equalisation Fund) and income cross-subsidies (a mandatory social security contribution of 4.1%) is explored.
Figure 10 shows that the introduction of REF simultaneously with income cross-subsidies continues to lower contributions for the family earning just below the tax threshold benefits. Whereas the per capita subsidy had improved their position from 44% of income to 28%, the REF and income cross-subsidy on PMBs reduces the cost of medical scheme membership to 22% of income. This is still higher than the Ministerial Task Team benchmark of 16% of per capita income (see section 3). In order to reduce contributions further for this family, it is necessary to have income cross-subsidies over a package greater than PMBs.

The high income “Professional” family sees contributions increasing from 4.8% of income with the current tax break (in Figure 8) to 5.2% under the per capita subsidy (in Figure 9) and to 7.7% with the income cross-subsidy on PMBs. This is slightly higher than having no subsidy when the contribution costs 6.2% of income.

In this illustration the social security contribution is paid by everyone earning any income. This definition could easily be altered and other definitions tested, for example, that only workers above the tax threshold pay a social security contribution. The value of building a model like this is it makes explicit the impact on families, and particularly on low income families. A spreadsheet showing the structure of the model is provided in the Resources section of this policy brief on the IMSA web-site.

### 6. Expanding Coverage for Health Insurance

A 2003 report by Goudge, Khumalo & Gilson on policy options to improve access of low-income households to healthcare said:

“There are two key questions facing countries wishing to ensure access to protection from uncertain, large and lumpy health care costs: 1) how to ensure those in informal employment who are able to contribute to insurance costs, do join a scheme; 2) how to ensure that the poor also have access to health care. There are two broad possibilities.”

“In the first option everybody is included and entitled to access at the point of service, but only those in formal employment pay health tax (universal coverage). This option is dependent on: 1) a relatively small proportion of the population unable to pay, and the ability of the rest to cover the costs of the poor; 2) the willingness of those able to pay to accept a level of benefits that the country can afford for whole population. These features are not often present in low and middle-income countries, particularly where there is a high level of income inequality, a highly differentiated expectation of benefits, and a high proportion of the population below the poverty line.”

“The second option is a segmented system based on employment with a public assistance scheme to provide access for the poor. This option requires identification of: 1) those who cannot afford to pay and therefore must be covered from public budget, and; 2) those who can pay but perhaps are outside the formal net. Both of these tasks are difficult, and often lead to the poor failing to obtain exemptions, and adverse selection where those that can pay, choose not to do so, and so reducing the ability of the scheme to cross-subsidise care for the poor.”

“In terms of improving the access of the poor, universal coverage (the first option) obviously is preferable, but may not be acceptable to the wealthy at a level of benefits that the country can afford.” The analysis by Goudge, Khumalo & Gilson used an interesting classification of the poor:

a) “those on the margins of formal employment, who could be included within formal systems of employment;
b) those outside the formal net, in self-employment or the informal sector, who are able to contribute towards health care costs;
c) the poor who are not able to contribute; and
d) the poorest who are not able to pay and due to social exclusion exist on the margins of society, and are very difficult to reach and require specifically tailored policies and implementation processes to enable them to benefit.”
The two tables below use the General Household Survey 2008 (GHS2008) to estimate numbers who might be able to be covered under mandatory health insurance.

### Table 2: Expand Coverage through Households with Incomplete Medical Scheme Coverage

Source: using data from GHS2008 from StatsSA

<table>
<thead>
<tr>
<th>Number of People in Household who are already on Medical Scheme</th>
<th>Medical Scheme</th>
<th>No Medical Scheme or unknown</th>
<th>Total No Medical Scheme or unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Children: Under Age 20</td>
<td>Working age: 20-64</td>
<td>Retirement Age: 65+</td>
</tr>
<tr>
<td>1</td>
<td>706,316</td>
<td>340,859</td>
<td>530,293</td>
<td>48,362</td>
</tr>
<tr>
<td>2</td>
<td>1,319,390</td>
<td>212,383</td>
<td>346,825</td>
<td>17,156</td>
</tr>
<tr>
<td>3</td>
<td>1,496,642</td>
<td>99,613</td>
<td>168,234</td>
<td>22,651</td>
</tr>
<tr>
<td>4</td>
<td>2,133,969</td>
<td>59,106</td>
<td>111,161</td>
<td>14,191</td>
</tr>
<tr>
<td>5</td>
<td>1,222,610</td>
<td>38,019</td>
<td>60,149</td>
<td>3,131</td>
</tr>
<tr>
<td>More than 5</td>
<td>852,564</td>
<td>18,704</td>
<td>38,864</td>
<td>4,916</td>
</tr>
<tr>
<td>Total</td>
<td>7,731,491</td>
<td>768,684</td>
<td>1,255,526</td>
<td>110,408</td>
</tr>
</tbody>
</table>

If everyone in a household where there is currently at least one medical scheme member were to join, total coverage would increase from 7.731 million to 9.866 million or an increase of 2.134 million people (an increase of 27.6% on current membership).

### Table 3: Expand Coverage through Households where at least one Person earns above the Tax Threshold

Source: using data from GHS2008 from StatsSA

<table>
<thead>
<tr>
<th>Number of People in Household who earn above the Tax Threshold</th>
<th>Medical Scheme</th>
<th>No Medical Scheme or unknown</th>
<th>Total No Medical Scheme or unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Children: Under Age 20</td>
<td>Working age: 20-64</td>
<td>Retirement Age: 65+</td>
</tr>
<tr>
<td>None</td>
<td>1,458,734</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1</td>
<td>2,956,106</td>
<td>2,091,153</td>
<td>3,222,682</td>
<td>165,227</td>
</tr>
<tr>
<td>2</td>
<td>2,712,934</td>
<td>600,714</td>
<td>1,217,115</td>
<td>50,105</td>
</tr>
<tr>
<td>3</td>
<td>402,538</td>
<td>85,689</td>
<td>240,785</td>
<td>11,753</td>
</tr>
<tr>
<td>4 or more</td>
<td>201,180</td>
<td>21,556</td>
<td>87,496</td>
<td>6,963</td>
</tr>
<tr>
<td>Total</td>
<td>7,731,491</td>
<td>2,799,112</td>
<td>4,768,078</td>
<td>234,047</td>
</tr>
</tbody>
</table>

If everyone in a household where there is currently at least one person earning above the tax threshold were to join, total coverage would increase from 7.731 million to 15.532 million or an increase of 7.802 million people (an increase of 100.9% on current membership). This approach could effectively result in a doubling of people covered for health insurance.
Note however that the use of household to “scoop” up all potential beneficiaries will over-state the number eligible. Medical schemes typically use a definition of “family” that tends to be only the spouse and children, rather than parents and siblings.

In the absence of risk equalisation schemes might be eager to encourage the children but would be reluctant to take on those over retirement age as usage of scheme resources increases substantially with age. Under a system of risk equalisation the medical scheme is rewarded for taking on older lives and those with chronic disease and penalised for attracting only younger healthy lives.

Work on “insurable families” for the retirement reform process\textsuperscript{10} showed that “people in those households not on medical schemes are predominantly young adults. Some are studying but others are not yet able to find work. There are far fewer working-age adults not covered and some will be other family members like brothers or sisters. Many medical schemes define “family” in ways which prevent these lives accessing health cover unless as members in their own right.” Medical schemes could alter the definition of eligible family members if they wanted to attract more of these young adults.

7. Implications for Healthcare Reform in 2010

It is a full year since the ANC sub-committee proposals for National Health Insurance began to surface in the public domain\textsuperscript{12-16}. There are still however no public documents from the Department of Health or Government on the proposed National Health Insurance reforms.

In the Budget statement in February 2010\textsuperscript{1}, the Minister of Finance said that “Alongside longer term reforms to the financing of health care, a closer partnership between the public and private health care systems is a prerequisite for the introduction of a national health insurance system.”

In more detail in the Budget Review 2010\textsuperscript{17}, National Treasury stated: “The construction of an NHI system in South Africa requires several parallel reform processes that build on existing resources and capacity in both the public and private sectors. There are many different configurations of national health insurance arrangements around the world. South Africa needs to develop its own affordable and sustainable reform path. A range of options is being explored. Research is now focused on identifying measures that might enable a feasible transition to an NHI model over the next five years.”

In order to transit to a model where those who can afford to pay for healthcare do so, the issue of affordability of health insurance will be critical. The evidence from the studies of affordability all point overwhelmingly in the same direction: reform of the existing tax subsidy for healthcare and its replacement with a per capita subsidy will have a large impact on affordability for lower income workers without meaningfully changing the level of affordability for medium and high income earners.

This per capita subsidy should be set equal to the amount per person in the public sector budget so that there are no distortions in incentives between public sector usage and private health fund usage. The per capita subsidy would be delivered to approved medical schemes through the mechanism of the Risk Equalisation Fund (see IMSA Policy Brief No. 8\textsuperscript{18} for more on risk pooling). This will begin the process of developing the much-needed income cross-subsidies between medical scheme members.

Over the years there have been other voices that have echoed the need for income-related cross-subsidies delivered via a risk equalisation mechanism, including:

- **The ANC Health Plan of 1994\textsuperscript{19}**: “Contributions to cover the basic package would be income related, .... This contribution revenue ... should be pooled in a central equalisation fund, out of which every scheme would be paid in terms of its overall risk profile i.e. a risk adjusted capitation fee.”

• **The 1995 Committee of Inquiry into NHI**\(^{20}\): “Contribution rates for the mandatory package must be set in relation to income”. “All medical schemes should participate in an equalisation fund .... ”.

• **The 2002 Taylor Report**\(^{5}\): “The Committee recommends that South Africa move toward a NHI system based on multiple funds and a public sector contributory environment as defined in the 1995 NHI Committee Paper”. Four phases of reform were defined, the first of which “The tax subsidy currently runs counter to the achievement of health policy objectives and must be reformed. It is recommended that it be converted into an explicit income and risk-adjusted subsidy.” “It is essential that a system of risk equalisation between medical schemes be introduced. This fund would also serve the function of allocating any appropriately structured risk-adjusted subsidy to medical schemes provided by Government.”

• **McIntyre and Van den Heever in 2007**\(^{21}\): “There is complete unanimity across all the proposals that there should be a risk equalisation mechanism between individual schemes.” “… if SARS were the collecting organisation and mandatory health insurance contributions and general tax funds were placed in a single pool, allocations would be made from this pool to individual schemes on the basis of a risk-adjusted capitation ... A risk-adjusted capitation amount would also be paid from the single pool for all who are not contributors to the mandatory insurance, and would then be allocated between individual public sector health facilities.”

This is perhaps the easiest area on which there is consensus on what is needed for reform.

The time has come to provide a common, equal, subsidy for healthcare for every citizen, whether they use public or private facilities. This notional subsidy should be paid to the provinces and distributed amongst medical schemes in a risk-adjusted way in order to ensure that the subsidy is allocated according to health need. This first step towards income cross-subsidies will have a major impact on improving the affordability of health insurance.

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**Resources on the IMSA Web-site**

The following is available on the NHI section of the IMSA web-site: [www.imsa.org.za](http://www.imsa.org.za)

- The slides and tables used in this policy brief. Additional slides showing each step in the sequence of reform model are provided [PowerPoint slides].
- A spreadsheet of the results of the affordability and sequence of reform model by McLeod & Grobler, showing the effect on affordability of each step in the reform process. [Excel spreadsheet]

As the purpose of this series is to put in the public domain material and evidence that will progress the technical work of developing a National Health Insurance system, we would be delighted if you make use of it in other research and publications. All material produced for the IMSA NHI Policy Brief series and made available on the web-site may be freely used, provided the source is acknowledged. The material is produced under a Creative Commons Attribution-Noncommercial-Share Alike licence.

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References

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