

Impact of Healthcare Reform on Members

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.

In policy making, once there is consensus on the desired future system, attention must be focussed on the trajectory or reform path. It is often only at this stage that families and individuals begin to understand the impact that reforms will have personally on them. And there can be unintended consequences. In Policy Brief 9 on Affordability¹, a methodology was presented for exploring the effects of reform on families and the impact of the intended reforms of 2005 was demonstrated. In Policy Brief 12 that work is taken further to consider PMB reform, option reform, risk equalisation and the introduction of a social security contribution, as well as combinations of these reforms. It is found that the order in which the steps are introduced is critical and that there is a preferred order for implementing the reforms to avoid disastrous consequences for low income families.

1. Reforms for Risk Cross-Subsidies and Income Cross-Subsidies

The graph below, from Policy Brief 9, illustrates the effect on a family of four of the steps in the reform process as envisaged by the Ministerial Task Team in 2005², from the current situation to a mandatory system with risk cross-subsidies (the Risk Equalisation Fund) and income cross-subsidies (a mandatory social security contribution of 4.1%).

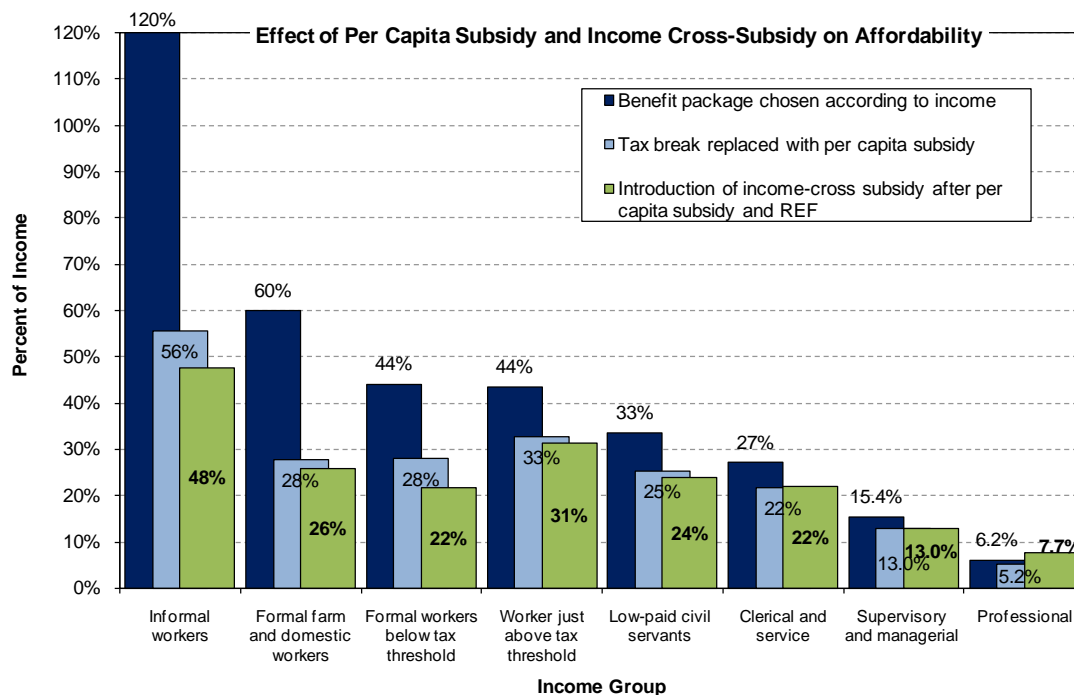


Figure 1: Impact on Affordability: Per Capita Subsidy, REF and Income Cross-Subsidy

McLeod & Grobler developed this methodology³ for demonstrating the effect of sequential reforms which was subsequently presented in visual form^a. 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 (PMBs) [but allows for other packages and the reform of options as described in Circular 8 of 2006⁴];
- 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 cover⁵]; and
- An additional social security contribution of 0.53% of income for every extra R10 of benefit package above PMBs⁵.

Figure 1 shows the unaffordability of medical schemes, even when less comprehensive packages are chosen by lower-income workers. Families just below the tax threshold would be faced with spending 44% of income on a medical scheme, making it unlikely they could join without substantial employer subsidies. The replacement of the current tax break for medical scheme membership with a per capita subsidy improves their position from 44% of income to 28%. The introduction of the Risk Equalisation Fund (REF) simultaneously with income cross-subsidies continues to lower contributions to 22% of income. The significant improvements in affordability for lower income groups can be accomplished with only minor increases for the highest income group, professional workers, from 6.2% of income before the tax break, to 7.7% of income with the income cross-subsidy on PMBs.

In order to reduce contributions further for low income families it is necessary to have risk and income cross-subsidies over a package greater than existing PMBs, as shown below.

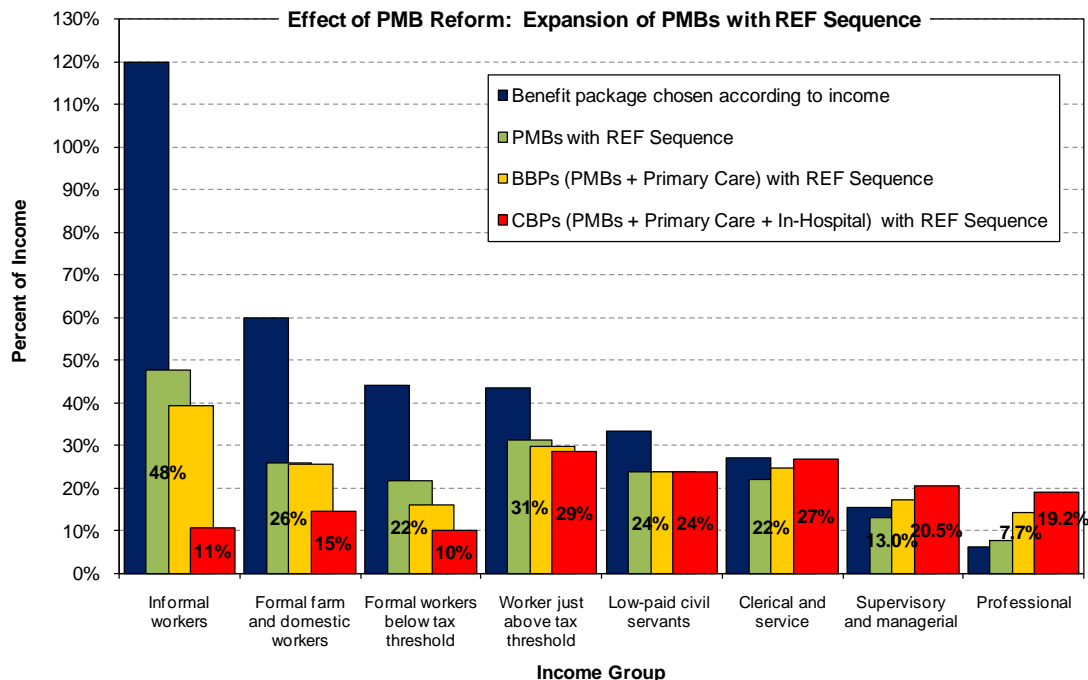


Figure 2: Impact on Affordability using Per Capita Subsidy, REF and Income Cross-Subsidy on PMBs and Other Benefit Packages

^a The impact of the sequential implementation of complex healthcare financing reforms, available on <http://www.integratedhealingmbs.com/#/presentations-health-finance/4522784357> and <http://www.africanagenda.com/convention2009registration/programme.php>

Four benefit packages are defined as follows:

- Prescribed Minimum Benefits (PMBs);
- Extended PMBs: PMBs plus all in-hospital events;
- Basic Benefit Package (BBPs): PMBs plus all primary care; and
- Comprehensive Benefit Package (CBPs): PMBs plus all primary care plus all in-hospital events.

The social security contribution needed for each of these packages is explored in Table 1. The analysis in the graphs is based on the amounts in cream, in other words assuming that everyone between the ages of 20 and 65 who earns any amount will contribute to social security and that the beneficiaries of NHI are the Insurable Families^b of contributors. This analysis thus includes even those earning between R1 and R1,000 a month^c. Any limit on who will contribute (for example, excluding all those earning below R1,000 a month) would increase the social security contribution required.

Table 1: Social Security Contribution Required for Expanded Benefit Packages for Different Definitions of Contributors

Mandatory Contributors (age 20 to 64)	none	Earning above the Tax Threshold	Earning above LIMS Threshold R2,000 pm	Earning above R1,000 pm	Earning any amount	Earning any amount
Beneficiaries	Insurable families of voluntary members	Insurable families of Contributors	Insurable families of Contributors	Insurable families of Contributors	Insurable families of Contributors	Total Population (full NHI)
Price of PMBs pbpm in 2007	257.02	216.51	210.39	203.37	198.55	213.26
Per Capita Subsidy pbpm	120.85	120.85	120.85	120.85	120.85	120.85
Social Security Contribution as % of income of Contributors		3.00%	3.10%	3.40%	4.10%	9.50%
Extra Social Security Contribution for extra R10 of benefit in minimum package		0.32%	0.35%	0.41%	0.53%	1.03%
Estimates of Expanding PMBs						
Extended PMBs = PMBs + In-Hospital (pbpm)	373.79	333.28	327.16	320.15	315.33	330.03
Social Security Contribution for Extended PMBs		6.7%	7.2%	8.2%	10.3%	21.5%
Basic Benefit Package BBPs = PMBs + Primary Care	408.83	368.33	362.21	355.19	350.37	365.08
Social Security Contribution for BBPs		7.9%	8.4%	9.6%	12.1%	25.1%
Comprehensive Benefit Package CBPs = PMBs + Primary Care + In-Hospital	525.57	485.07	478.95	471.93	467.11	481.82
Social Security Contribution for CBPs		11.6%	12.5%	14.4%	18.3%	37.2%

Note: assumes no efficiency gains in purchasing in expanding coverage

The table above shows that for income cross-subsidies for PMBs only, which were priced at R257.02 in 2007, the contribution required is estimated to be 4.1% of income^d. The Extended PMBs have a value of R373.79 pbpm^e and would need 10.3% of income. The Basic Benefit Package would need 12.1% and the Comprehensive Benefit Package would need 18.3% of income from all contributors.

Note that if the same contributors covered everyone in the country (the last column on the right), then the Comprehensive Benefit Package would need a social security contribution of 37.2% of income. This is clearly out of the bounds of possibility.

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^b Insurable Families follow a similar definition of "family" to that used in medical schemes i.e. a member and spouse or partner, with all their children. Children have been defined as those under age 21 or those in tertiary education up to age 25.

^c Income levels in South Africa were explored in section 1 of Policy Brief 9 on Affordability.

^d The precise definition of income that might be used for social security contributions has not yet been determined. The tighter the definition (for example, excluding certain types of income), the higher will need to be the social security contribution. If the definition is wider (for example, includes investment income or interest earnings), then a lower contribution might be needed. This detailed analysis will eventually need to be performed by South African Revenue Services (SARS) using the tax collection data.

^e Per beneficiary per month

Figure 2 the effects of three packages on the illustrative family were graphed. For formal workers earning below the tax threshold^f, having only PMBs included in REF and the income cross-subsidies mean they still needed to spend 22% of income for healthcare cover. If a larger package is included in minimum benefits, then the family can get comprehensive cover without needing to spend as much themselves. If the Comprehensive Benefit Package is made mandatory, then these families might only need to spend 10% of their income on healthcare.

However the trade-off is that the three highest income groups, from “Clerical” up to “Professional”, will pay more. The “Clerical and Service” group would pay 27% of income which makes healthcare less affordable. The “Supervisory and Managerial” group would have contributions increase from 12.9% of income (including the tax break⁹), to 20.5% of income. The “Professional” group would see contributions rise from 4.8% of income (including the tax break) to 19.2% of all earned income. This may well prove to be unaffordable for these groups. Note that any definition that limits the amount paid by the higher income groups (for example, capping the total contributions) will result in a higher contribution rate needed by everyone.

This then is the trade-off which has not yet been adequately discussed by stakeholders and society: what is the extent of income cross-subsidies that the highest income groups are prepared to tolerate in setting up a National health Insurance system? This issue could also be described as the **extent of solidarity** that could be designed into the social security system.

2. Sequencing the Reforms needed for the Risk Equalisation Fund

The same sort of analysis is very useful to look at the sequence of reforms. The figure below shows the trajectory of reforms envisaged by the Ministerial Task Team on Social Health Insurance in 2005².

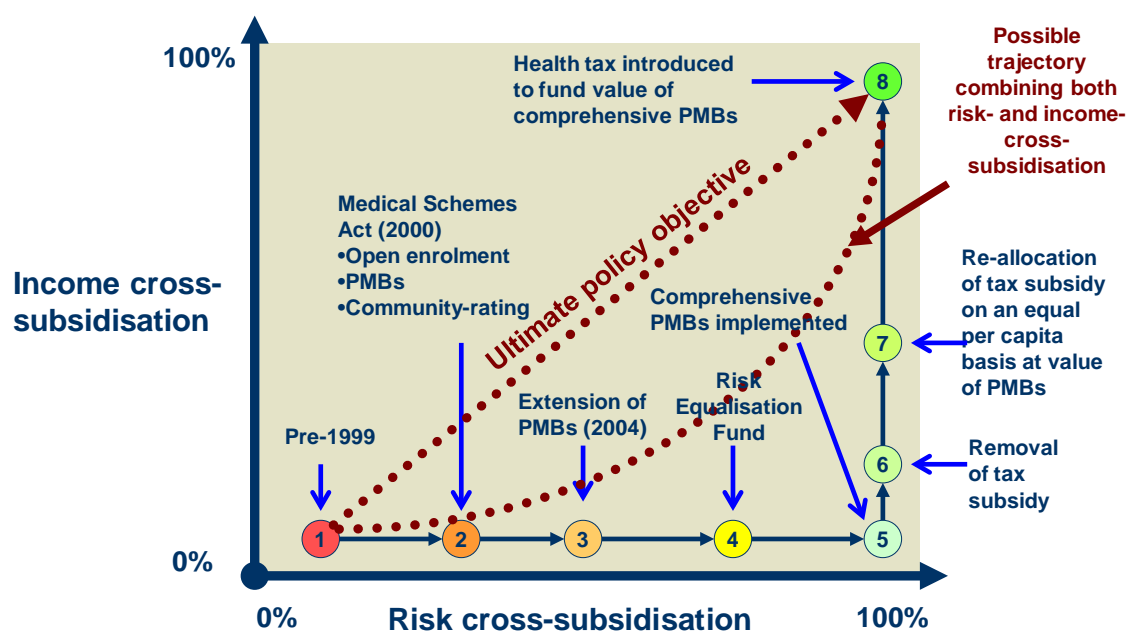


Figure 3: Policy Objective and Trajectory for Healthcare Financing Reform²

^f The tax threshold is the level at which people begin to pay income tax. This is at R54,200 per annum or R4,517 per month for those under age 65 in the tax year 2009/10. For those older than 65, the tax threshold is higher at R84,200 per annum or R7,017 per month. In this analysis using the General Household Survey data from 2005, the tax threshold was at R2,917 per month.

⁹ Not illustrated, see Figure 8 in Policy Brief 9 on Affordability.

The Ministerial Task Team on SHI used the graph above to show the steps needed to reach the two key policy objectives of introducing risk cross-subsidies and income cross-subsidies. The horizontal axis deals with the introduction of risk cross-subsidies. Prior to the Medical Schemes Act of 1998 (implemented in 2000) there was almost no cross-subsidy (point (1) above). The introduction of open enrolment, community rating and minimum benefits began to improve cross-subsidies from the healthy to the sick and from young to old. The extension of PMBs in 2004 to include treatment of chronic diseases solidified the cross-subsidies within options.

Risk cross-subsidies will be extended substantially when the Risk Equalisation Fund is implemented. The sequencing of reforms does not require point (5) before progress is made on the vertical axis of income cross-subsidies. The flow of funds would not alter for extending the PMBs to a larger, more comprehensive package (including at least more primary care).

The first step towards introducing income cross-subsidies would be the removal of the existing tax expenditure subsidies which favour high-income earners (point (6)). These cross-subsidies would be substantially extended by introducing a per-capita subsidy instead (point (7)). The final step to the full implementation of mandatory health insurance would be point (8), where contributions in respect of PMBs are collected according to income in the form of a social security contribution.

In the shadow process^h leading up to the implementation of REF, the focus has been on the risk adjustment process and less attention has been given to the introduction of income cross-subsidies. Stakeholders have raised concerns about the possible impact on low income workers if REF were to be implemented alone. The graph below illustrates why this is a legitimate and worrying issue.

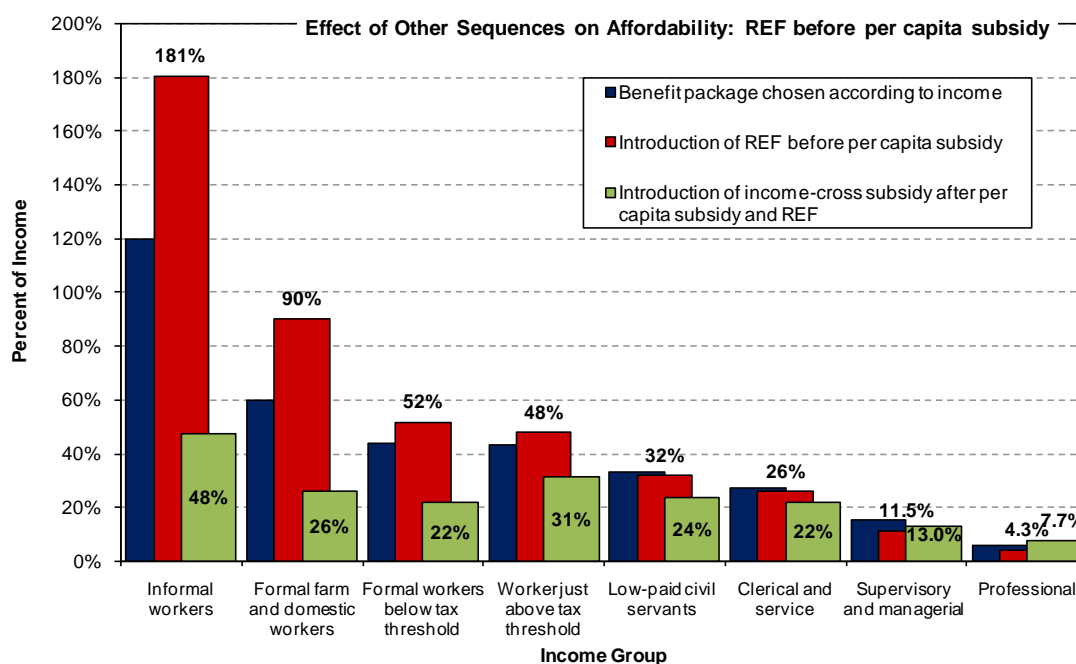


Figure 4: Impact on Affordability of the Risk Equalisation Fund without any Income Cross-Subsidies

REF on its own before the per capita subsidy or any income cross-subsidy is seriously damaging to all lower income groups, putting them in a much worse position than now. The “Formal workers below the tax threshold” would see the cost of healthcare increase from 22% of income to a staggering

^h Since 2005 the Council for Medical Schemes has been collecting quarterly data and determining the likely financial flows between medical schemes if REF were to be implemented, but no money changes hands.

52% of income. The situation is even worse for the lowest income groups. High income groups benefit the most with contributions for the “Professional” group falling from 7.7% to only 4.3% of income. The reason is that many low income workers are on options that have a younger age profile. Those with higher incomes are often on options with comprehensive cover and these attract older and less healthy members.

REF implemented in isolation will require the lower risk options to pay in and the money will be transferred to the high risk comprehensive options. Lower income workers on the low risk options are thus placed in a position of subsidising the high income workers which is not what is intended at all. This is why the Risk Equalisation Technical Advisory Panel and International Review Panel that designed the initial REF structure^{6,7} never envisaged REF being introduced in isolation without the accompanying income cross-subsidies.

The graph below explores this issue further to determine to what extent the income cross-subsidies need to be implemented simultaneously with REF. In terms of Figure 3, this analysis explores the effects of implementing point (7) or whether it is necessary to move fully to point (8).

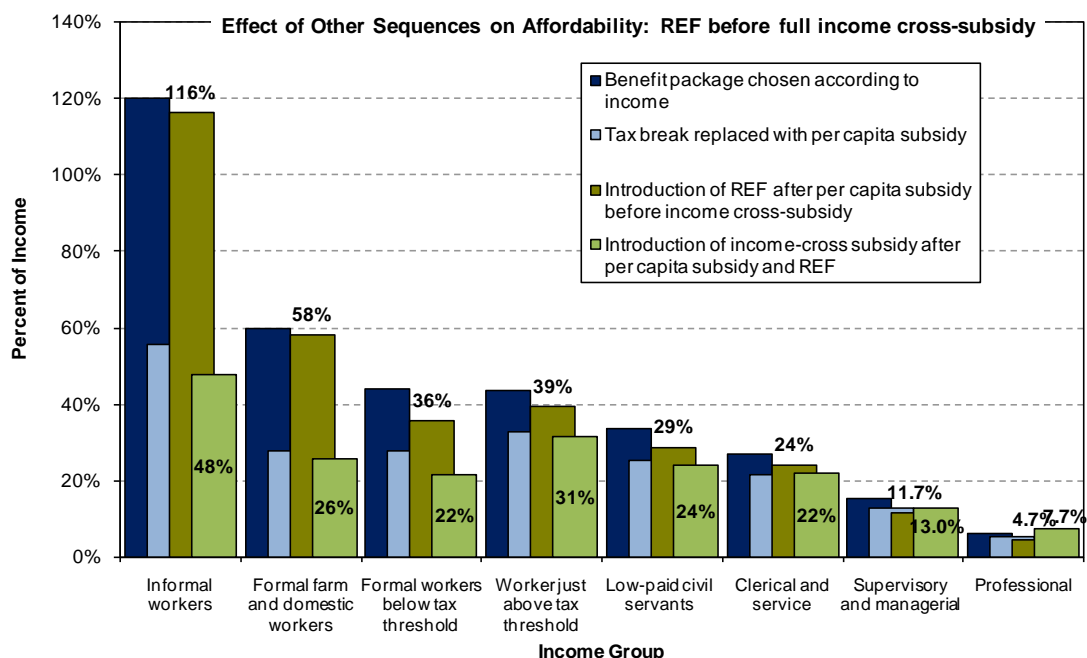


Figure 5: Impact on Affordability of the Risk Equalisation Fund with Partial and Full Income Cross-Subsidies

The introduction of REF after (or simultaneously with) the per capita subsidy but before full income cross-subsidies is almost the same as the current position. The per capita subsidy on its own would have been better for lower income groups than this partial implementation. If full income cross-subsidies are implemented (remove existing tax break; replace with per capita subsidy and implement social security contribution of 4.1% of income to cover PMBs), then lower income workers are better off than with the per capita subsidy alone.

The “saw-toothed” effect of the sequence may be a surprise to some stakeholders. The removal of the tax break and replacement with the per capita subsidy is shown to be the most important effect on affordability for lower income workers. However this does NOT mean that REF and income cross-subsidy are contributing very little to affordability. Without REF, there remain unfair differences between options or schemes where the amount paid depends on the demographics of the option or scheme joined. This range of results has not been illustrated. Under REF the price for the common package of PMBs converges on the industry community rate for all market participants.

3. Benefit Design and Option Design Reforms

A controversial aspect of recommendations from the Council for Medical Schemes was the possible redesign of benefit and options structures as envisaged in Circular 8 of 2006⁴. This was further developed in a draft of the discussion document on PMB reform⁸, as illustrated below.

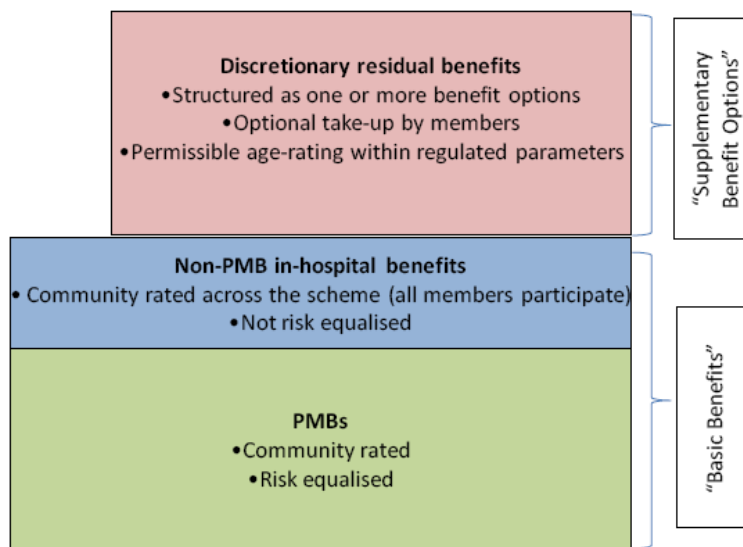


Figure 6: Proposed Future Option Structures (Source: Council for Medical Schemes⁸)

The Council for Medical Schemes argued that: "The revised benefit structure will remove the de facto risk rating through benefit design, and introduce scheme community rating. The implementation of REF will lead to industry-wide community rating in respect of the PMBs. The revised benefit structure will permit a distinction between "basic benefits" that must conform to strict community rating and "supplementary benefit options" that may be subject to limited age rating." The proposed structure was included in the Medical Schemes Act amendment bill in 2008 but this bill did not complete its passage to become legislation.

The two graphs below show the impact of implementing the PMB of this reform to option structures before the **REF sequence**, namely removing the tax break; replacing it with a per capita subsidy and implementing an income cross-subsidy of a percent of income for the cost of the minimum package.

The analysis begins by pooling only the PMBs in a common pool. Figure 7 compares the implementation of the option reform (introduction of common benefits) to the current position (chosen according to income) and the best outcome to date for a PMB package which is where the REF sequence is fully implemented. It is shown that option reform has disastrous consequences for lower income groups – worse than introducing REF on its own without any income cross-subsidies, as shown in Figure 4. The low income group "Formal workers below tax threshold" will find themselves paying perhaps 57% of income whereas the REF with income cross-subsidies would put them in a position of paying only 22% of income. Again, the higher income groups benefit most from the proposed option reform.

The reasons are similar to those in the previous section. High income groups have joined more comprehensive options which have a worse risk profile. The creation of a single common pool within every scheme for basic benefits is like creating a mini-REF within every scheme. Those in comprehensive and worse risk profile options will benefit and those in lower risk profile options, typically the lower income groups, will have to pay more. This is because risk cross-subsidies have been introduced without adequate and matching income cross-subsidies in the scheme.

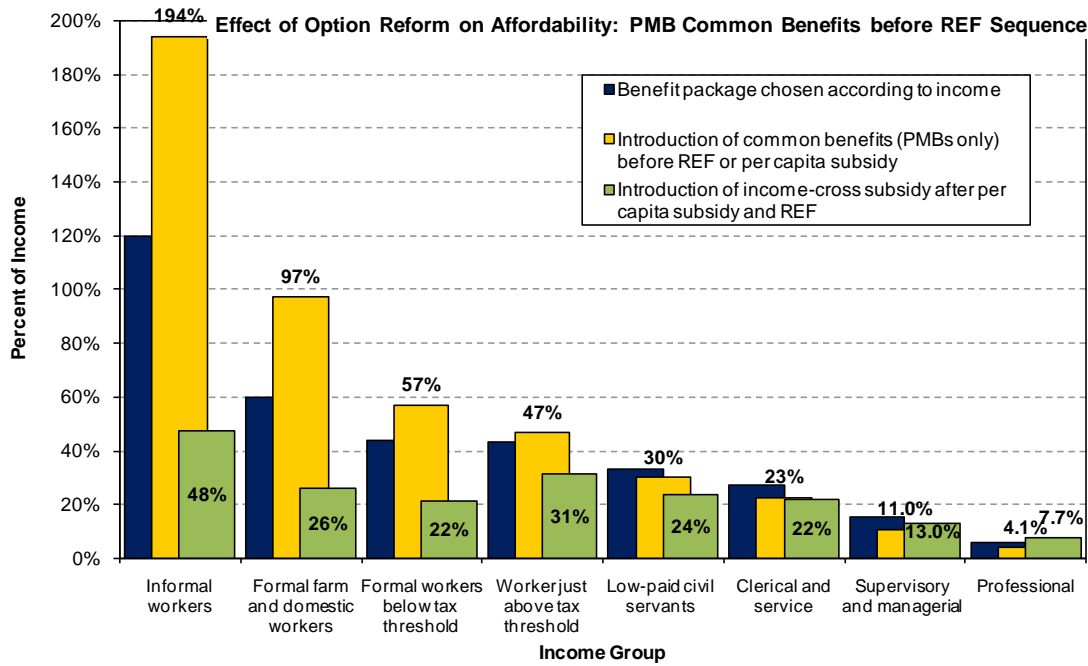


Figure 7: Impact on Affordability of Option Reform before REF Sequence

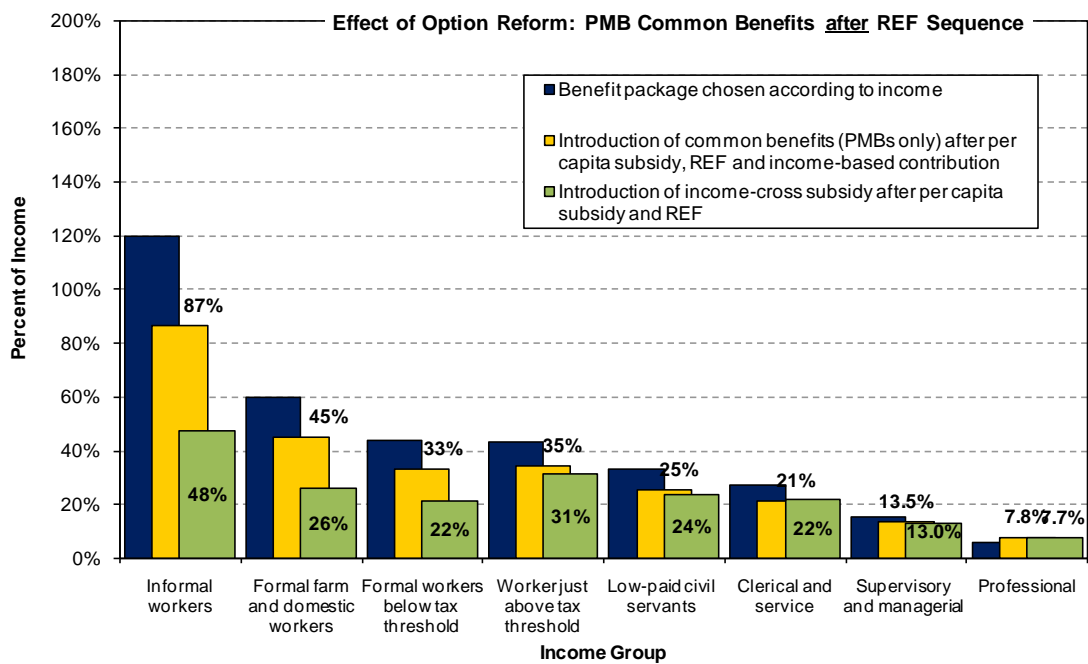


Figure 8: Impact on Affordability of Option Reform after REF Sequence

Figure 8 shows the impact of only implementing the options reform (common benefits) after the REF sequence. The lower income groups are worse off than REF sequence, although better than now (choosing according to income). There is now a duplication of objectives as REF deals with equalising risk between options whereas the option reform first equalises the risk between options within a scheme and then has REF on top to equalise the difference between schemes. In this example (drawn from actual industry options), the two step approach is worse for lower income workers than REF implemented on options. In some schemes the reverse may apply.

The graph below shows the effect if common benefits are extended to include PMBs and all in-hospital events, as envisaged by the Council for Medical Schemes. As the benefit package is now larger, the adverse impact on the lowest income workers is even worse if the options reform proceeds before the REF sequence.

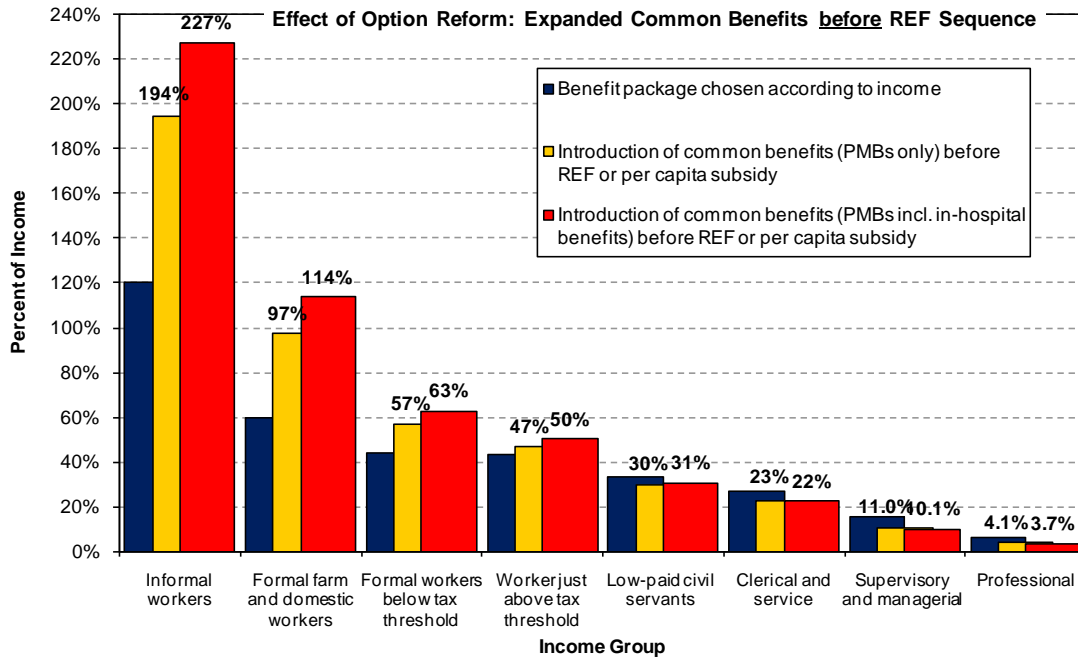


Figure 9: Impact on Affordability of Option Reform with Expanded Common Benefits before REF Sequence

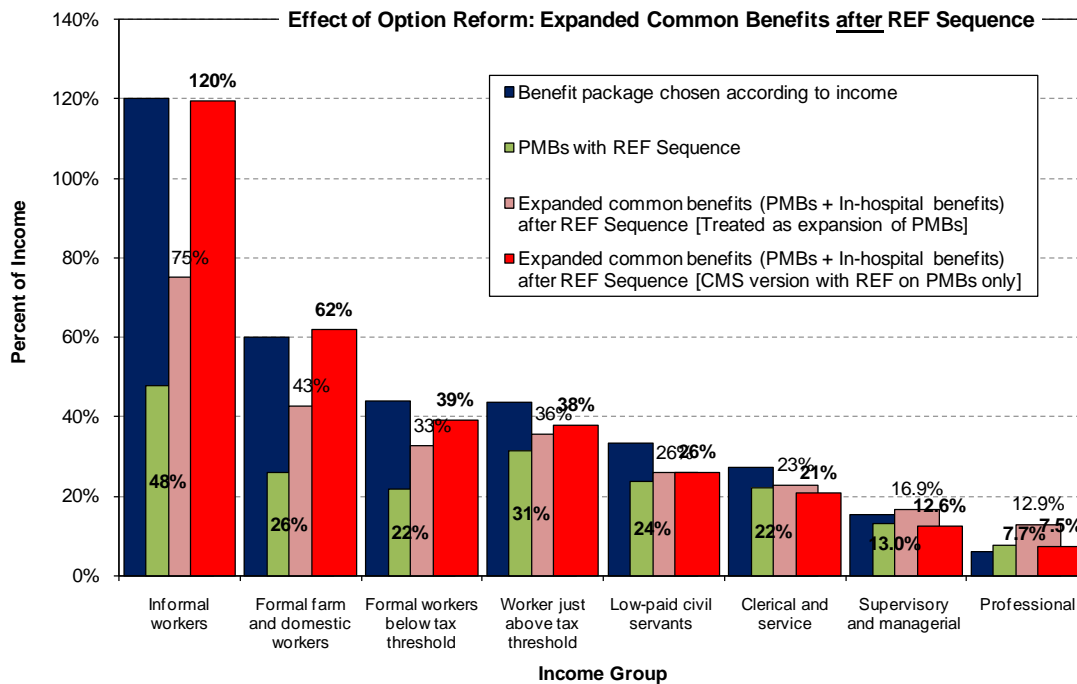


Figure 10: Impact on Affordability using Per Capita Subsidy, REF and Income Cross-Subsidy on PMBs and Other Benefit Packages

The technique can be used to distinguish between two seemingly similar sounding courses of action. Figure 10 is complex but shows the differing impact of two approaches to implementing common benefits after the REF sequence:

- As envisaged by the Council for Medical Schemes: common benefits apply to PMBs and all in-hospital events but REF applies only to PMBs.
- Common benefits apply to PMBs and all-hospital events and REF applies to the same package. However income cross-subsidies occur only on the PMBs.

Neither of these approaches are shown in Figure 10 to be helpful to the lower income groups and they are left in a position which is similar to the current unaffordability. There is however a third approach which was illustrated in Figure 2:

- Expand minimum benefits to apply to PMBs and all-hospital events. REF and income cross-subsidies apply to the same package.

The larger the package of common benefits, the better for the highest income groups and the worse for lower income groups. However if the package is treated as an expansion of minimum benefits, then more is paid via the income cross-subsidy and thus the outcome is better for the lower income groups.

4. The Implications for Healthcare Reform

From an implementation point of view, there are considerable risks in implementing all the steps towards a system of mandatory membership at the same time. However if all steps are not introduced at the same time, the order in which the steps are introduced will have a different impact on different stakeholders.

In order to retain stability within the current system as well as to attract new members into the system it would be essential to introduce income cross-subsidies simultaneously with risk equalisation and before other reforms to the benefit package. If not it will decrease the affordability of private health insurance for many members, thereby forcing them to opt out of the voluntary system.

At worst, risk equalisation needs to be introduced after the per capita subsidy and before full income cross-subsidies, but McLeod & Grobler advocated that risk equalisation should be implemented together with the full income cross-subsidy on the minimum benefit package.

The sequence of reform that will cause the least instability and seems most viable in terms of the impact on workers is as follows:

- Already in place: open enrolment, community rating, minimum benefits.
- Remove tax subsidy and replace with a per capita subsidy;
- Introduce the Risk Equalisation Fund to operate between options;
- Simultaneously introduce an income cross-subsidy for the minimum benefit package;
- Introduce mandatory membership for all earning any income (very lowest income need some form of wage subsidy or subsidy of social security contributions if these are a flat percent of income);
- Deal with option restructuring issues to improve community-rating at scheme level and enlarging the package of minimum benefits.

The difficulties raised by the sequential implementation of complex reforms are significant in the transition from a voluntary to a mandatory health insurance system. Risk equalisation is a critical institutional component in moving towards a system of social or national health insurance in competitive markets, but the sequence of its implementation needs to be very carefully considered.

This analysis has been done on reforms that have been in the public domain to 2009. There is still no Government document dealing with the post-Polokwane vision of National Health Insurance. Once a discussion paper is released, this form of analysis should be performed to understand the extent of social solidarity envisaged and to understand the impact of the trajectory of reforms on members.

If other options for reform emerge during 2010, then it would be possible to add them to the model already developed. It would also be of value for other stakeholders to set up similar models for analysis and to do so in 2010 terms.

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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

- The slides and tables used in this policy brief [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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