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How healthy is South Africa's medical schemes industry?

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Abstract **An analysis of the membership demographics, the financial health and especially the sustainability of the South African medical schemes industry is presented. From the financial and in particular the actuarial analyses it is obvious that the current system is unsustainable, and if a *private* health care sector is to survive at all it will have to contain costs far more effectively than it has in the past. It is suggested that medical schemes (and other mechanisms of funding health care) review their funding policies and move towards advance funding of pensioner benefits, and also that the schemes be actuarially valued on a regular basis.**

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Virtually every textbook on health economics published during the last 25 years stresses that escalation in health care costs, whether absolute, relative or per capita, is a cause for concern on the part of governments, business leaders and individuals.[1] The trend for health expenditure to occupy an ever-increasing percentage of the gross national product is well documented in all Western economies and is set to continue or worsen owing to factors such as the ageing of the population, expensive technological advances in diagnosis and treatment, changes in disease patterns (e.g. AIDS), and progressively more specialised health care providers and facilities.[2,3]

In spite of providing a progressively better service to patients, most of the world's health care systems are therefore in a state of crisis because they are running out of money and are coming under increasing scrutiny for inefficiency and wastefulness.[2] However much these health care systems differ, their problems are all the same: how to subject doctors and hospitals to financial discipline, how to secure adequate treatment for the poor and the elderly, how to recruit enough nurses from a shrinking teenage population, and how to control the apparently infinite demand for health care.[4]

The South African health care system shares all the above problems and in addition has to cope with our peculiar historical, political, demographic, economic and legislative environment. South Africa currently has a two-tier health care system; a private sector catering for approximately 21% of the population covered by medical aid or benefit schemes, and a public sector (funded from taxes) which has to assume responsibility for the health needs of the remaining 79%. The abovementioned 21% of the population are in the privileged position of consuming through their medical schemes (largely subsidised by employers) over 45% of the country's total health care expenditure.[5]

With the debate on alternative structures for the funding and delivery of health care in a 'new' South Africa starting to gather momentum, we considered it opportune critically to examine the membership demographics, the financial health and especially the sustainability of the medical schemes industry in this country.

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The South African medical schemes industry

Traditionally, organisations in both the public and the private sector have provided access to comprehensive health care as a condition of employment for their higher categories of employers (mostly whites). These benefits are usually also available to the employee's dependants, and the cost of providing the health care is shared (to a varying extent) by the employer and the employees. This is achieved via membership of a medical aid scheme (majority) or a medical benefit scheme.[6] Employees in lower categories (mostly black) have generally not enjoyed these benefits, and apart from basic occupational health services have had to rely on the State for their and their families' health care needs. During the last few years most employers have opened their medical schemes to all employees (or have created a separate scheme for lower categories), but owing to the prohibitively high (and rising) contributions, many lower-income employees have elected not to join the schemes.[7]

South Africa currently has 239 medical schemes, of which 192 are registered under the Medical Schemes Act and 47 are so-called exempt schemes. Of the 192 registered schemes, 172 are medical aid schemes and 20 medical benefit schemes; of the 47 exempt schemes, 42 provide the Registrar with reports and 5 (Transmed, Polmed, Gevmed and the South African Defence Force and National Intelligence medical aid schemes) do not. The numbers quoted from the Annual Report of the Registrar of Medical Schemes[8] therefore exclude these 5 schemes and they should all be inflated by approximately 15% to reflect the total medical scheme membership and financial data for the country.

The breakdown of membership of the various schemes that report to the Registrar[8] is shown in Table I. Medical schemes cover 6,2 million beneficiaries, and the coverage per population group is given in Table II. The trend of coverage in each population group over the last decade is given in Fig. 1.

TABLE I.
Medical schemes membership, 31 December 1990

	Aid schemes	Benefit schemes	Exempted schemes	Total
Members (A)	1 765 126	290 694	319 920	2 375 740
Dependants (B)	3 042 794	487 037	282 403	3 812 234
Beneficiaries (A+B)	4 807 920	777 731	602 323	6 187 974

TABLE II.
Membership statistics, 31 December 1990

Pop. group	Beneficiaries	Population	% cover
Black	1 441 925	21 609 000	6,7
Coloured	964 213	3 214 000	30,0
Asian	328 643	956 000	34,4
White	3 453 193	5 018 000	68,8
Total	6 187 974	30 797 000	20,1

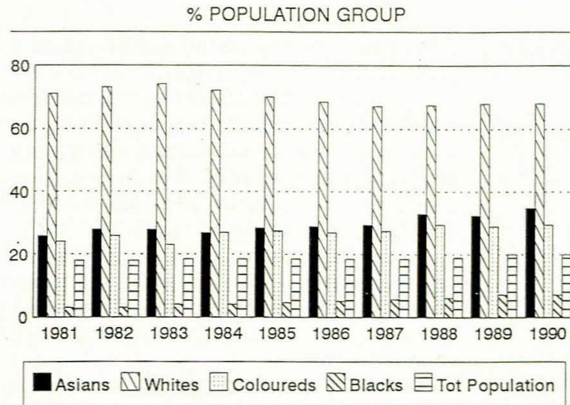

FIG. 1.
Medical scheme coverage rates according to population group, 1981 - 1990.

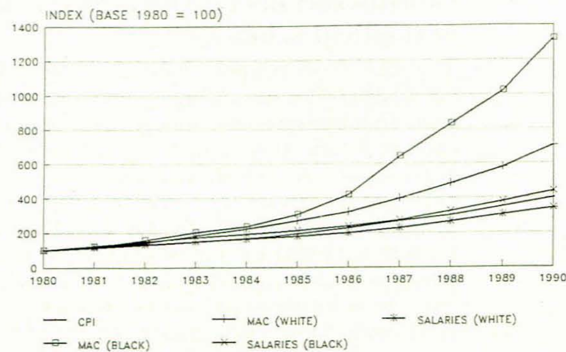

FIG. 2.
Medical aid contributions (MAC), the consumer price index (CPI) and salary increases, 1980 - 1990.

In his latest Annual Report the Registrar[8] notes a general pattern of escalation in health care costs right across the medical schemes movement, with a total payout in respect of benefits of approximately R5,3 billion in 1990. This represented a 36,9% increase in expenditure over the previous year, while the number of beneficiaries increased by only 1,9% during this period, resulting in a 36,2% per capita increase. The benefits paid out during 1990, as well as the increases that occurred during 1989 and 1990,[8] are set out in Table III.

TABLE III.
Medical scheme benefits

Benefit		% of exp., 1990	% increase, 1990	% increase, 1989
General practitioner		15	26,6	29
Medical specialist		16	27,6	24,8
Dentist		10	27,1	22,2
Hospitalisation, total		23		
Private hospitals	18		55	32,2
Provincial hospitals	5		35,9	17,1
			50,4	28,1
Medicines		27	41,5	29,5
Other		8	50,3	35,5
Ex gratia payments		1	31,5	0,2
Total		100	36,9	28

During 1990, doctors (general practitioners and specialists) and dentists received a 15% and private hospitals a 19,2% increase in the unit value of the respective Scales of Benefits.[8] However, the much higher percentage increases in the benefits paid out (Table III) are the result not only of unit price increases but also of significantly higher volumes of services as a result of a combination of higher usage by medical scheme members, more servicing by providers, and the addition of new services.

The total income of the medical schemes movement during 1990 was in excess of R5,9 billion, which represented an increase of 31,1% over 1989. Membership contributions made up 91,7% of the total income and the benefits paid out during 1990 constituted 89% of the total income.[8]

Fig. 2 illustrates the very rapid rise in medical aid contributions when compared with the consumer price index and salary increases during the years 1980 - 1990.[9]

In spite of the increase in income, medical schemes suffered a trading loss in 1990 totalling R115 million. The total accumulated funds (net assets) in respect of all schemes are R1 024 billion — equivalent to approximately 2 months of expenditure.[8]

Administration costs amounted to R322,6 million, which represents approximately 6% of expenditure.[8]

Despite the significant increases in the cost of, and benefits provided by, medical aid schemes, many providers of health care services are 'contracted out', charging rates well in excess of the Scale of Benefits. This is in fact encouraged by the Medical Association of South Africa and has led to a plethora of 'top-up' schemes being offered by the insurance industry.

An actuarial view of the financial health of medical schemes

Legislative background

Three facts emanating from the Medical Schemes Act[10] have a direct bearing on the funding structure of medical schemes.

1. Until 1989 the Act prohibited differentiation in contribution rates other than on the basis of earnings and the number of dependants. With effect from 1989 members' contributions could be differentiated on practically any grounds, but wider differentiation is still not general practice in South Africa.[11]

2. Section 20(1) of the Medical Schemes Act compels a medical scheme to make provision in its rules: '(d) for the continuation, subject to the prescribed conditions, of the membership of a member who retires on pension or whose employment is terminated by his employer on account of age, ill-health or other disability', and '(e) that the widow of a member is, subject to the prescribed conditions, entitled to membership during her widowhood or until she becomes entitled to membership of another registered medical scheme by virtue of employment'.

3. There is no provision in the Act to compel any pre-funding of the future medical expenses of a pensioner or actuarially to value the schemes.

These stipulations have allowed medical aid and benefit schemes to operate on a cash-flow rather than an advance-funded basis, while assuming that there will always be enough high-contributing, lower-claiming ordinary members to cross-subsidise the low-contributing, higher-claiming continuation and widow members (CAWMs). Although accurate industry-wide figures are not available, it is estimated that pensioners claim between 2 and 4 times as much as the ordinary members within a particular scheme.[8,11]

Considerations for the funding structure of medical schemes

The 'cash-flow' method of funding, currently the norm for medical schemes, is highly undesirable for two reasons: (*i*) it transgresses a fundamental business principle that any benefit that accrues to an employee after retirement should be pre-funded and charged against the profits of his labour (as is the case with provident and pension funds); and (*ii*) with the current system used by medical schemes, the future medical benefits of a pensioner are inextricably linked to the fortunes of the employer's business and the assumption that there will be enough young low-claiming members in a particular medical scheme willing to cross-subsidise a growing number of CAWMs. Advance funding via a separate fund not only provides the maximum protection of these benefits but also places them outside the control of the employer.[11]

The reality is, however, that there is a growing reluctance on the part of the young and healthy to subsidise the sick and elderly.[8] Although this may not be their primary motivation, their reluctance is quite reasonable, because under the current structure there is no guarantee that they will in their turn be subsidised once they become pensioners. Many of these younger people are opting for the cheaper and more limited forms of cover (catastrophe cover, etc.) offered by insurance companies, and this trend is likely to continue.[8]

The ratio of ordinary members to CAWMs

Owing to the ageing of the sector of the population covered by medical schemes, the ratio of active members to CAWMs is declining at an alarming rate.

In a study of six randomly selected pension funds with a total of 50 000 active members, Marx[11] found that the average ratio of active members to pensioners has declined from 15,3 to 7,0 over the last 6 years. A comprehensive Sanlam survey of retirement funds[11] indicated that the number of active members per pensioner decreased from 10,0 to 7,5 between 1984 and 1991.

This trend is also reflected in the country's largest medical benefit society (Mines Benefit Society), where the ratio of ordinary members to CAWMs decreased from 3,80 in 1987 to 2,58 in 1992.

This tendency is in line with experience in the Western world generally; in the UK, for example, the ratio of active members of medical aid schemes to pensioners decreased from 5 to 2 between 1975 and 1984.[11]

Quantification of the actuarial deficit of medical schemes

In order for the funding of a medical scheme to be placed on a sound footing, there are two elements to be considered: (*i*) the capitalised amount required to cover the future expenditure in respect of the existing CAWMs; and (*ii*) the amount by which an ordinary member's monthly contribution must increase to pre-fund the expected expenditure after he retires.

These are typical actuarial calculations, and using different sets of relatively conservative assumptions about future inflationary trends (for health care and investment income), Marx[11] calculated the capitalised amount for a male member and his spouse as at retirement date to be between R98 000 and R118 000.

In simple terms this means that in current money terms approximately R100 000 must be available at retirement of every member if no future contributions are to be made by them or on their behalf.

To translate this to all existing pensioner members, the R100 000 could be reduced (owing to the fact that existing pensioners are already older than the average retirement age) to R75 000 per pensioner member. Furthermore, the figure could be reduced by the value of future contributions to, say, R55 000.

According to the *Report of the Registrar*,[8] there were approximately 160 000 pensioner members and approximately 130 000 pensioner dependants. Say on average there are 145 000 pensioner members with spouses.

Multiplying 145 000 by R55 000 gives a figure of close to R8 billion — this is the amount of assets the medical scheme industry should have had available *today* to fund future costs of its existing pensioners. This R8 billion is equivalent to more than a year's total income and obviously does not include provision for those who are due to retire soon.

Using similar actuarial calculations, it is estimated that, in order for the accumulated funds to be sufficient to meet their medical expenditure when they become pensioners (retirement age 65 years), ordinary members should contribute, in current money terms (starting from various ages), the amounts set out in Table IV. These amounts are obviously over and above the amounts needed to fund their current expenditure.

TABLE IV.
Suggested amounts to be contributed by ordinary members to fund for their own retirement

Age	Monthly increase
20	R 237
30	R 288
40	R 382
50	R 609
60	R1 769

This gross underfunding of medical schemes is an international phenomenon which Loomis[12] refers to as 'killer cost stalking business'. The Financial Accounting Standards Board in the USA has attempted to force organisations to account for these benefits as a form of deferred compensation. These rules are not expected until after 1992 and will obviously be very difficult to put into operation. Although they will not affect cash flow they will, according to Loomis, have profound effects on the income statements and balance sheets of corporate America and may be disastrous to its financial health.[12]

Conclusions

The escalation in costs in the South African private health care sector is out of control and the medical aid industry is under severe financial strain.

As a result of more than a decade of runaway medical inflation in this sector, medical aid schemes are fast becoming unaffordable to their traditional customers. It will also be unaffordable (to employers, employees or the State) to try to extend this system (or a similar third-party insurance scheme) to low-income groups or the unemployed who are not covered at present.

However, the problem is a lot more serious than even the bleak financial position of the medical schemes industry would indicate at first glance; the current funding mechanism, based on cross-subsidisation rather than

advance funding, has led to medical schemes building up massive actuarial deficits. The results quoted above indicate that if a proper actuarial valuation is done on today's typical medical scheme, where it (by law) promises to cover medical costs of current and prospective pensioners, the scheme would be hopelessly insolvent. Furthermore, the trend among the young and healthy to opt out of the system in favour of cheaper but more limited medical cover can only worsen the already desperate situation and may be the final crack in the cement of cross-subsidisation which traditionally has kept the contribution tables of medical schemes standing.

The current system is clearly unsustainable and if a private health care sector is to survive at all in a new South Africa, it will have to contain costs far more effectively than it has in the past. To be sustainable, and honest towards their current members, medical schemes (and other mechanisms of funding health care) must review their funding policies and move towards advance provision for pensioner benefits. It is also recommended that medical schemes and other funding mechanisms be actuarially valued on a regular basis.

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