

**BLACK PATIENTS KNOWLEDGE, USE OF AND ATTITUDES  
TOWARDS THEIR MEDICAL AID SCHEMES**

**BY**

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## **ABSTRACT**

This report investigates the knowledge, use of and attitudes of Black patients towards their medical aid schemes. The focus was on both the private and public sector employee and also on the various medical aid schemes covering these employees. Significant differences in opinions were noted and reported between the private and public sector employee. The majority of Black medical aid patients lacked sufficient knowledge of their medical aid schemes. Their perceptions of the various role-players within the medical aid industry were very poor. The dissertation concludes with recommendations on how the various role-players can make a change to improve the Black patient's knowledge, use of and attitudes towards his medical aid scheme.

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## CHAPTER ONE

### INTRODUCTION

#### 1.1. Background

South Africa's health benefits industry is facing the future with uncertainty aggravated by a turbulent, rapidly changing social and economic environment. As a result of this, there exist mixed expectations about the future of medical benefits. The major players are worried of over-regulation and the perceived impracticalities associated with government's proposal for a single new medical scheme for public servants on one hand and a new national health-care policy, including its social health insurance scheme, on the other hand.

Ant Lester, MD of Old Mutual Actuaries & Consultants (OMAC), says strategic issues facing health benefit arrangements are cost control pre-funding for mounting pensioner medical liabilities, AIDS, and the government's increased regulation of the industry.

Kgosi Letlape, Chairperson of the National Council of the South African Medical Association, says, medical schemes look good in black and white, but in real terms they have very little value. Contributions to these schemes are becoming increasingly unaffordable for members. In sharp contrast, the benefits are declining.

Shaun Matisonn, Principal Officer of Discovery Health Medical Scheme, says, funding of health-care is a universal problem that all countries around the world try to solve. The problem vary from country to country, with the United Kingdom suffering

from long waiting lists and cancer survival rates equal to those of Eastern Europe, as opposed to Western Europe. While the United States continues to see the cost of private health insurance increasing far in excess of inflation, he says.

## 1.2. Purpose of the Research

The researcher is in a fortunate position of being a service provider (community pharmacist) and a member of a medical aid scheme. As a service provider, the researcher experience numerous problems regarding the service provision to medical aid patients on the one hand and administrative and claiming difficulties from administrators of medical aid schemes on the other hand. Some of the more common complaints from a patient perspective are:

- ◆ Medical aid benefits being exhausted prior to the benefit period
- ◆ The inappropriate allocation of funds to the various benefits offered
- ◆ The ignorance of the meaning and use of the auxiliary benefits
- ◆ The poor understanding of the claim procedure and their consequence openness to fraud and abuse by service providers
- ◆ Their inability to read a medical aid statements
- ◆ The lack of information and changes from medical schemes and government.

These are a few of the common problems encountered by the researcher's patients. A large proportion of the researcher's patients have switched medical aid schemes with the hope of being offered better packages compared to their existing ones.

The majority of these patients have experienced very little, if any long term benefits from the switch. Some of these problems could be explained by the literacy inefficiencies of a few patients. Most patients are however of a medium to high literacy level.

The study therefore looks at the possible reasons behind these problems and the correction there off.

The purpose of this study/survey is therefore to examine the knowledge, use off and attitudes of Black patients towards their medical aid schemes.

The problem of the relationship between human health, ethics and economics has always been the center of modern thought. (Berlinger, et al). The issue of medical schemes and health-care has been the focus of numerous medical and scientific researches over the last few years. However most research and discussion is based from a viewpoint of medical scheme administrators and government intervention within the industry. Very little, if any, focus has been put on the members of these schemes and their opinions and shortcomings of the schemes. This study tries to remedy this imbalance.

### 1.3. The Problem Statement

The majority of Black patients on medical aid schemes are not knowledgeable of their medical aid schemes. These patients also do not know how to utilise their medical aid schemes and their perceptions of their medical aid schemes are very poor.

#### 1.4. Objectives of the Study

The objectives of the study can be listed as follows:

- ◆ To describe the existing knowledge of medical scheme operations, illness conditions, service providers, different groups of medication and medical benefits of Black patients of their medical aid schemes.
- ◆ To elucidate the perceptions of information required and received, benefits offered, contributions, membership, profitability, claim payment and medical aid brokers of the Black medical aid patient.
- ◆ To examine the impact of biographical data of Black medical aid patients regarding the variables of the study

#### 1.5. Importance of the Study

The study aims:

- ◆ To ascertain the reasons behind the patient's lack of knowledge about his medical aid scheme.
- ◆ To try and understand the reasons behind the poor perception of medical aid schemes.
- ◆ To contribute to the body of knowledge about medical aid schemes and the factors that influences it.

## 1.6. The Critical Questions

The critical questions that the study wishes to investigate are:

- ◆ Are Black medical aid patients knowledgeable about their medical aid schemes?
- ◆ Do Black medical aid patients know how to use their medical aid schemes?
- ◆ What attitudes and perceptions do they have of their medical aid schemes?

## 1.7. The Unit of Analysis

The unit of analysis will be the Black medical aid patient.

## 1.8. Structure of the Report

Chapter one concludes with a brief summary.

Chapter two presents the literature review with emphasis on the current issues surrounding the medical aid industry and the healthcare industry in South Africa.

Chapter three describes the research methodology. It includes the design of the research, the selection of the participants, the data collection, ethical issues and the demographical information.

Chapter four includes the more pertinent and relevant results.

Chapter five examines the discussion of the results.

Chapter six outlines the recommendations and conclusions.

### 1.9. Conclusion

In this chapter, the background of the study and the purpose of the research were outlined. The problem statement was outlined and the objectives of the study were listed. The importance of this study was also touched on. Finally a brief structure of the report was given.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1. Definitions

##### 2.1.1. What is a Medical Aid Fund?

A medical aid fund is a mutual fund operated on a non-profit basis for the benefit of its members. It is governed by a set of rules, regulated under the Medical Aid Funds Act and belongs solely to those who contribute to the fund, i.e. members and their employers. Thus money paid into a medical aid fund can be paid out only in the form of benefits for the members or added to the fund reserves for the benefit of all the members. A medical aid fund is not an insurance scheme.

##### 2.1.2. What is A Medical Aid Fund Administrator?

A medical aid fund administrator is a company that administers medical aid funds in return for an administration fee. A medical aid fund administrator does not own any medical aid funds, nor does it benefit from any profits made by a medical aid fund.

##### 2.1.3. How does a Medical Aid Fund work?

Each member, and usually their employer, pays a contribution to the Fund each month. These contributions are pooled and used to pay claims for members and their

dependents and to pay the administration costs. Any excess money is invested and is known as the Fund Reserves. Adequate fund reserves are essential to absorb the impact of future contribution increases or can be used to provide improved benefits for members. Should a catastrophe occur that causes claims to exceed income during any given period, the Fund Reserves will provide the members with another income source, thereby ensuring the Fund's continued solvency.

#### 2.1.4. What is cross-subsidisation?

Cross-subsidisation, whereby the risk is spread evenly amongst all members of a distinct group involves putting aside money in a mutual insurance fund during good times for use in future times of need. In a medical aid fund, this means that the young and the healthy support the old and the sick by cross-subsidising them. To get the benefits of cross-subsidisation, a person should also belong to a medical aid fund for the entire working lifetime.

#### 2.1.5. What is a medical aid tariff?

Each year all medical aid fund managers and medical service providers negotiate a fee that the medical aid funds are willing to pay the service providers for each medical service. The medical aid funds negotiate through the Board of Healthcare Funds (BHF). The fee for each service as negotiated between BHF and the medical service providers is known as the "contracted in rate" or "medical aid rate". Service providers that charge BHF guideline tariff are commonly known as "contracted in" service

providers and these service providers normally claim directly from the medical aid funds.

#### 2.1.6. How are benefits and contributions determined?

In deciding on what benefits to pay each year, a medical aid fund usually considers the following:

- ◆ BHF guideline tariff - Because a medical aid fund can decide what percentage of the BHF guideline tariff it is prepared to pay as benefits, funds that pay 100% or more of this tariff are more expensive than funds that require members to pay a part of their medical expenses.
- ◆ Benefit limits - A medical aid fund that has no annual limits on benefits is very expensive and beyond the means of the average person. Since a medical aid fund must operate within a budget, benefits are often limited to ensure that contributions are affordable. Any limits on benefits must be low enough to prevent members from abusing the fund through over-utilisation of benefits, yet high enough to ensure that real needs can be met.
- ◆ Ex Gratia facility - This facility allows members who have exceeded the relevant benefit limit to apply for their claims in excess of the benefit limit to be paid by the fund.
- ◆ Member co-payment - By making members pay a portion of the cost of medical services, members are made aware of the cost of medical aid claims. Member co-payments help to lower overall costs in a medical aid fund by discouraging unnecessary use of medical services, thereby reducing claim and administration costs.

- ◆ Administration costs - Administration costs usually account for a small portion of the total expenditure by medical aid funds, usually between 5 and 8% of contributions. Efficient and cost-effective administration through, inter alia, intelligent application of technology, administration costs can be managed and increases kept to a minimum.
- ◆ No and low claim bonuses - A no or low claim bonus is granted to members at the end of the financial year if they have claimed nothing or very little from their medical aid fund during the year.
- ◆ Determining contributions - A medical aid fund can charge contributions based on income and family size or base contributions on age and family size. To maintain cross-subsidisation, those with higher incomes must subsidise those with lower incomes to ensure that all members can have equal access to medical services at an affordable price. Of all the factors that have an impact on the cost of medical aid, age is the most relevant. Age is often referred to as the “ultimate cost driver”, since the saying “the older one gets, the sicker one gets” holds true. Members with dependents pay more than members without dependents.

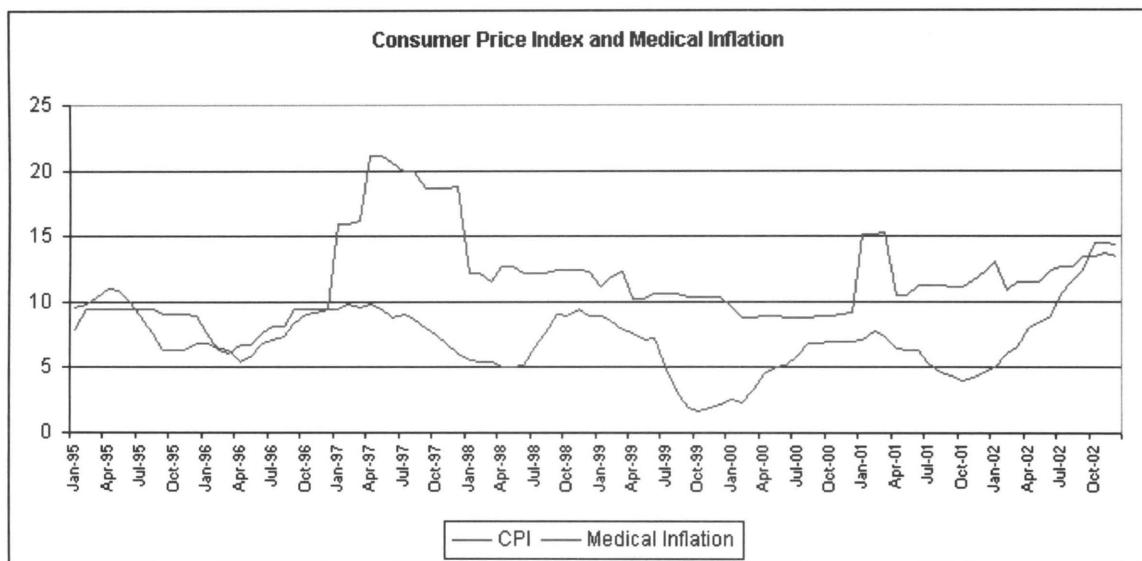
## 2.2. Overview of the medical scheme industry.

Sustainable affordability in the face of soaring medical inflation and government pressures is by far the biggest challenge facing private healthcare in South Africa today. Tough economic realities are putting the medical aid industry under pressure. The medical Consumer Price Index (CPI) has steadily outstripped inflation since 1995. From 1997 to 2000 medical inflation was about double the rate of the general

CPI. In 2000, when the CPI fell to its lowest level of 4.6 percent, the medical CPI was 9.0 percent. (Statistics SA 2000 report).

Inflation in the industry is difficult to control, given the relatively high percentage of imported costs experienced by the healthcare industry, and the continuous devaluation of the rand.

Graph 2.1. Consumer Price Index and Medical Inflation



From a consumers viewpoint however, wage and salary increases are typically based on the CPI. Healthcare costs are consuming an increasing share of the average individual's disposable income, and the rising cost of medical aid premiums is forcing employers to reassess the total employee benefit package they offer their staff.

### 2.3. The new Medical Scheme Act

The act and its regulations forms part of a strategic plan by government to clean up the healthcare industry, so that formally employed people pay for their medical care thereby relieving the pressure on public healthcare.

The regulations of the act contain crucial provisions, such as incentives, to encourage you to join a medical scheme as soon as possible, to avoid being penalised.

Johan Human, director and actuary at Jacques Malan & Associates, has identified the most important points you should look out for in the regulations. (The Independent on Saturday 02 October 1999)

- ◆ Community rating:

The regulations, Human says, will most likely introduce a rule whereby everybody who wants to join a medical scheme has to be allowed to pay the same price, with the only discriminating criteria being how much they earn and how many dependents they have.

- ◆ Open Access:

This provision means medical schemes are not allowed to exclude anybody from becoming a member of the scheme. So whether you are 90 years old, or suffer from a serious illness, a scheme will not be able to refuse you membership if you were, say, diabetic, or if they considered your age too much of a liability.

- ◆ Late joiner penalties.

While the new Act already states that nobody can be refused membership of a private medical scheme, Human expects the regulations will contain a provision that medical schemes can apply “late joiner penalties” and waiting periods.

- ◆ Amnesty period:

Human points out that if you were not on a medical scheme before the year 2000, you may join within the first six months of 2000 without incurring penalties.

- ◆ All schemes will have to pay for certain minimum medical benefits:

Many employed people are under the impression, Human says, that they don't need medical cover and that they will simply go to a public hospital if they need care. He predicts this impression that free hospital care will carry on forever, will be given the boot with the new regulation.

Now you will be encouraged to join a medical scheme which will have to provide you with a certain minimum levels of benefits-compelling your scheme to pay should you use the care available in public hospitals and to provide you with the care that is available in public hospitals.

All in all, Human expects the regulations to emphasize the importance of the financial soundness of a medical scheme. So if you're about to join one, his advice is that you focus on those schemes which are financially sound, with good risk management abilities and responsible trustees.

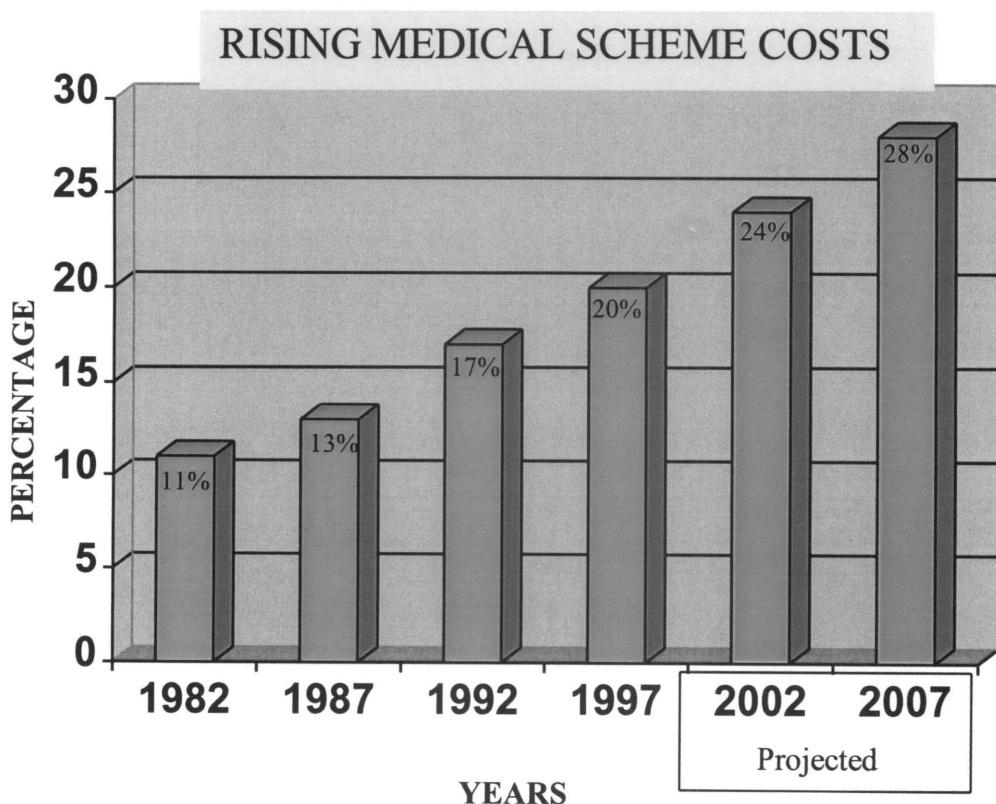
#### 2.4. Medical aids' response to inflation and legislation.

Most medical schemes have reduced benefits while increasing premiums by 15 to 20 percent annually over the past four years, while the average annual salary increase over the same period has been between 6 and 9 percent. As schemes continue to reach

solvency margins as stipulated by the Medical Schemes Act, the cost of cover is set to rise anything from 15 to 30 percent. (Council for Medical Schemes).

Research conducted in 2001 by T.W.I.G SA under Sharon van der Westhuizen covering 3000 medical aid members living in SA established that 33 percent were contributing between R250 and R500 per month, 30 percent were contributing between R500 and R1 250, and 17 percent were paying more than R1 251, excluding employer contributions. The employers subsidised the premiums in 70 percent of cases.

Figure 2.1. Average Medical Scheme contribution as a percentage of salary



In terms of the Act, the reserve requirement of all schemes by the end of 2005 will be 25 percent of all membership contributions. Even with annual increases on the above premiums, many medical schemes will battle to reach this statutory reserve requirement.

In an attempt to deal with this problem, many medical schemes encouraged new membership with unrealistically low premiums and through reinsurance. Since medical aids are non-profit organisations, they have little to offer an investor in terms of returns. Most existing medical aids are trimming costs where possible by improving the level of efficiency, but this is a short-term solution that will show diminishing returns.

To survive over the longer term, medical aids have to reduce their product range, increase member contributing while cutting their benefits.

The Act was expected to stimulate growth in membership of medical schemes, but this has not materialised to any significant extent. Overall growth in membership in 2000 was only 0.4 percent-a small improvement on the 0.03 percent decline in membership in 1999, but a significant drop from the 2.7 percent increase experienced in 1998, before the Act was promulgated. (Council for Medical Schemes).

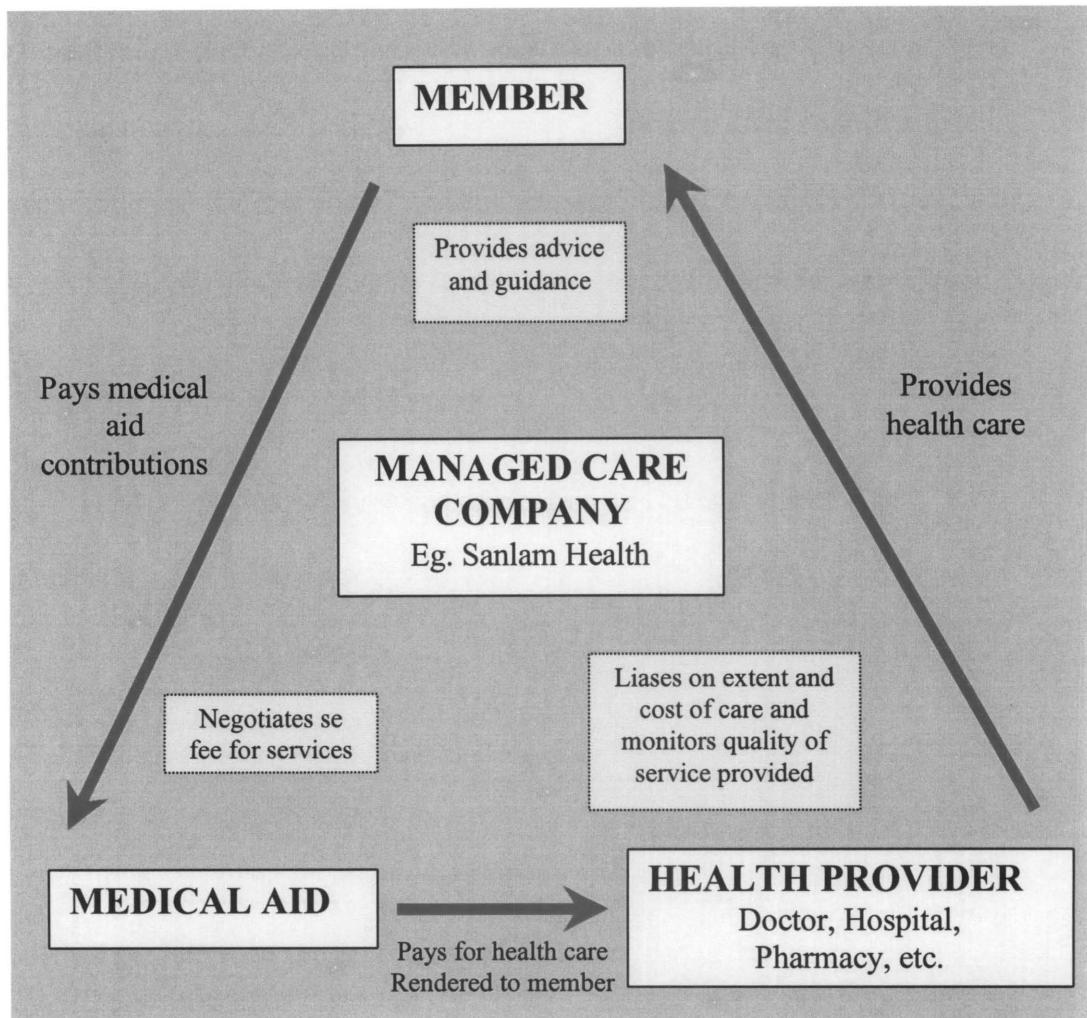
Medical scheme administrators are looking to technology for solutions to the increasing costs. Administration is made easier and more efficient through high-tech programmes. Administrators are now adopting a holistic, preventative approach to health management, rather than a responsive reaction catering only for the treatment of sickness. Schemes are encouraging members with chronic conditions to participate in their disease management programmes, and rewarding lifestyle choices that contribute to good health. (T.W.I.G. SA 2001 report on the Life Insurance Industry).

## 2.5. The shift of health focus to managed care.

Managed care is a process, which monitors how you, your medical scheme and your health-care providers use medical aid. It also attempts to manage the cost and quality of your medical treatment. South African managed care activities and organisations can broadly be classified as:

- ◆ Pharmaceutical organisations such as Medicredit, Interpharm, Direct Medicines and Mediscor. These organisations typically manage your pharmaceutical benefit on behalf of your medical scheme.
- ◆ Hospitalisation management organisations like Qualsa and QA Care that manage the hospitalisation of a group of members on behalf of their medical schemes. These organisations will, for instance, authorise you to go to hospital and they will follow up by managing your actual hospitalisation telephonically or in person.
- ◆ “Integrated” managed care organisations. Many larger commercial medical schemes or medical scheme administrators such as Momentum, Sanlam Health, Southern Joint Venture, Fedsure Health, Old Mutual, and Norwich Health are establishing in-house managed care capabilities.

Figure 2.2. How managed care works



Managed care has become a popular way for medical schemes and medical administrators to deal with the problem of rising cost of private health care in South Africa. It is been hailed by many as the answer to problems which affects everyone's pocket: Medical inflation, increasing costs associated with HIV/Aids epidemic and the financial need to shift the focus of health care from curative to preventative. The question still lingers on whether managed health care has provided in a meaningful way as far as you, your medical scheme and medical service providers are concerned. At a recent annual convention of the Institute of Life and Pension Advisors (ILPA),

Izak Fourie, chief executive officer of Health Care Advisory and Management Services (HAMS), tried to answer these questions. Fourie strongly believes that the introduction of managed health care is one of the most important reforms the private health care sector will have to undergo.

Some driving forces for change in the private health care sector are:

- ◆ Uncontrollable medical inflation. Escalating health care costs concerns everyone from individuals to politicians and business leaders. Health care expenditure continues to consume an ever-increasing percentage of the GDP. The reasons include the aging of the population, expensive technological advances in medical diagnostics and treatment and more specialisation by health care providers.
- ◆ HIV/AIDS and health care costs. The South African health sector will, well into the future, bear the brunt of the impact of HIV/AIDS on this country and its resources. Fourie says your medical scheme will not be able to afford the additional expense of Aids and that the impact of this disease will have to be managed effectively. Considering the number of people affected with HIV, it will not be cost effective to charge a fee for medical care and to allow individuals to have a free choice of health care provider.
- ◆ A shift from sickness care to health care. It is more costly to treat illnesses than to spend money trying to prevent them. Fourie says there is increasing pressure on employers to promote preventative health care and health promotion.
- ◆ Insisting on accountability. You and your medical scheme, as the funders of health care, are progressively insisting on health care providers accounting for the cost and quality of care.

## 2.6. The impact of AIDS on medical schemes.

Close to 25 percent of South African adults are now infected with the virus, and HIV related hospital costs are becoming significant. Members of the health care industry agree that Government will carry most of the cost of the pandemic, but they expect about 20 percent of the individuals using private health care to be HIV positive by 2005. However, with health management, HIV/AIDS patients can significantly improve their life expectancy, quality of life and their ability to function as contributing members of society, while the cost of their health care and treatment has declined by up to 40 percent. (South African Health Review of 2001)

HIV/AIDS continues to pose a massive challenge to the industry. According to the South African Health Review of 2001:

- ◆ 24.5 percent of all pregnant women are HIV positive. Extrapolated to include men, children, and non-pregnant women, this translates to approximately 4.8 million South Africans;
- ◆ Nearly 20 percent of all people aged 15 to 49 years are infected with the virus;
- ◆ The incidence of infection in the under-20 age group has decreased from 21 percent in 1998 to 16 percent in 2000;
- ◆ In 2000, 40 percent of all deaths of people aged between 15 to 49 were AIDS-related;
- ◆ The average life expectancy of a person with HIV is 47 years, compared with 65 years for a person who is not affected.

Figure 2.3.National HIV trends among clinic attendees in South Africa 1990-2000

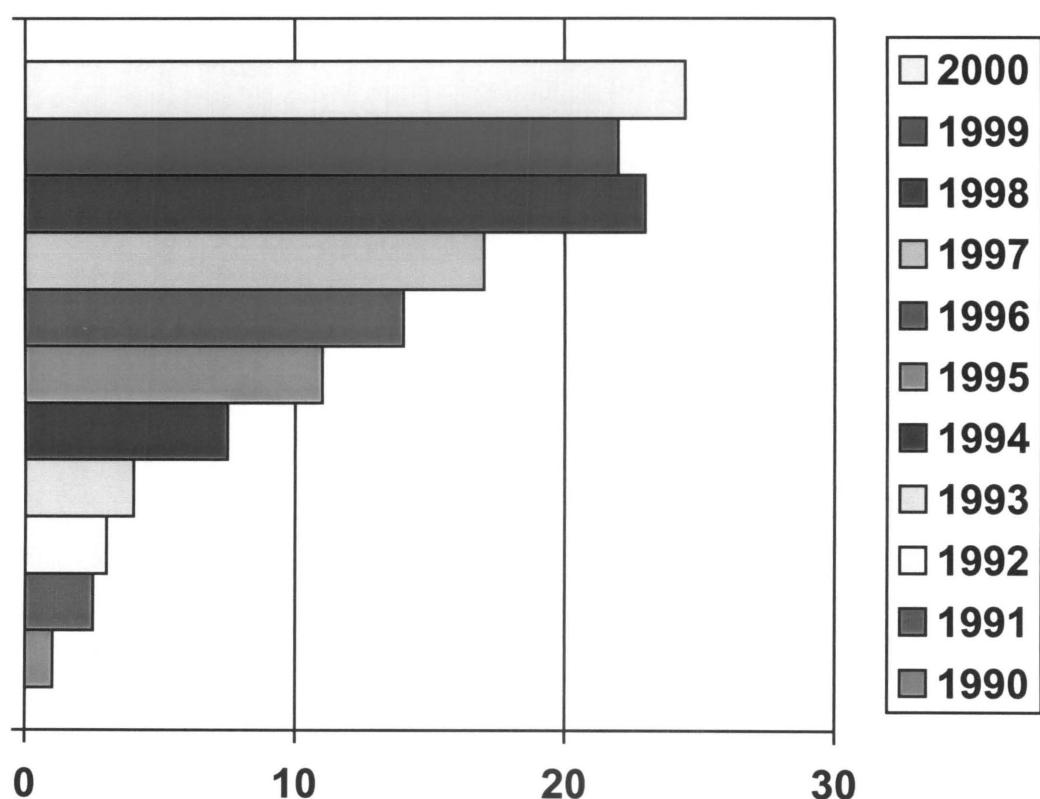
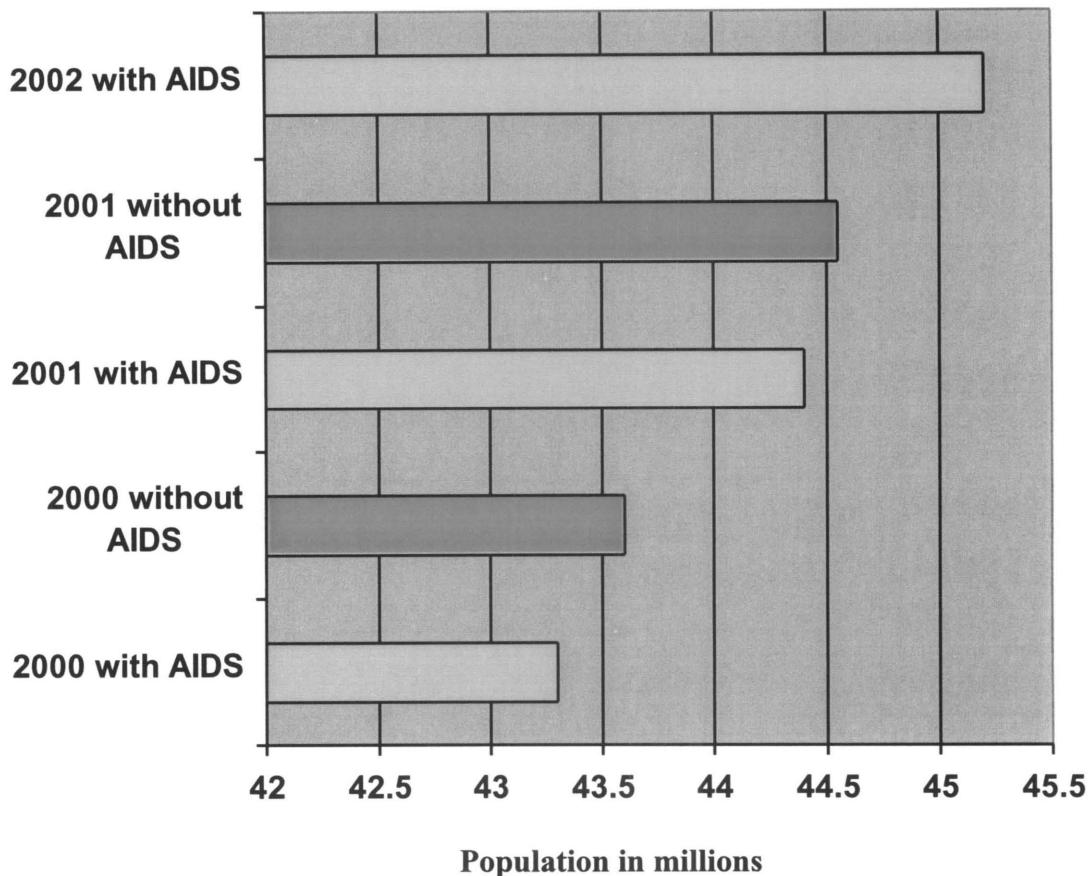


Figure 2.4. Population estimates with and without AIDS



## 2.7. Who will pay for the increase in aid claims?

Janina Slawski, actuary at Southern Life's Group Risk Management Consultancy, says AIDS will affect the distribution of claims among age groups. Presently, most medical schemes still differentiate between contributions by income and by number of dependents- and not by age. If no changes are made to the structure of the contribution table, then the increased incidence of claims due to AIDS will result in an overall increase in contribution rates.

If you are a pensioner you will pay higher contributions, even though people your age are unlikely to have caused a significant proportion of the increased claims due to

AIDS. In the absence of AIDS, the medical aid claims of older members are usually subsidised by younger members. When there are numerous AIDS cases, older members' normal claim will continue to be subsidised, but they will subsidise the AIDS claim of the younger members.

This, Slawski says, raises the question of equity and fairness, particularly in schemes that have been in existence for some time. Older members with long membership have in the past had to subsidise claims of members older than they are. AIDS will cause an overall increase in claims-but they are likely to be of a "high frequency, low cost" nature.

Benefit structures at an individual scheme level as well as at a National Health Plan level will have to accommodate this change in claim profile. Slawski says medical aid schemes cannot assume that the current contribution tables will survive and that they don't have to look at their funding strategies. She says such assumptions mean schemes will run into difficulties- despite good managed care techniques.

## 2.8. Fraud and abuse of medical schemes.

Medical scheme fraud and abuse affects you-at least 10 percent of your monthly contribution to your medical scheme is going towards the payment of fraudulent claims, Barry Swartzberg, the managing director of Discovery Health, says. Fraud results in higher contributions and diminishing benefits. A breakdown of cases by Discovery Health show that most fraud and abuse is perpetrated by medical scheme members, who are responsible for 26 percent of fraud and abuse in the private health care sector. General practitioners and specialists are each responsible for 12

percent of fraud and abuse: non-members posing as members account for 9 percent; pharmacies for 8 percent and optometrists and medical scheme staff 7 percent each. The private healthcare industry estimates that fraud and abuse comprise between 10 and 25 percent of the total amount of money that is spent on private healthcare in a year. This amounts to as much as R8 billion annually. According to a report published last year by the Ethics Institute of South Africa:

- ◆ Nearly 2 out of every 3 doctors claim they have witnessed incidence of misconduct by a colleague:
- ◆ Nearly two-thirds of doctors claim that doctors supplement their income by over- servicing patients:
- ◆ Two out of every five doctors believe that doctors supplement their incomes through ‘arrangements’ with private hospitals and clinics: and
- ◆ Half of South African doctors say that doctors increase their charges to medical schemes by over-servicing patients at least once a month.

Healthcare fraud and abuse is a global problem. According to a May 1992 report by the United States General Accounting Office, it is estimated that fraud amounts to as much as 10 percent of annual healthcare expenditure. Healthcare expenditure in the US during 2000 was about \$1.3 trillion. According to the report, fraud costs the average family \$750 a year.

Medical schemes without risk or cost management appear more prone to fraud than those, which are more tightly managed. Medihelp reports that one of the schemes it administers, which has unlimited medical benefits, membership premiums full paid by the employer, and no risk or cost management, fraud runs at 23 percent. By contrast,

on another highly managed scheme, the percentage of fraudulent claims submitted is 0.2 percent.

Bonitas Medical Scheme is finding that clinically unnecessary treatments account for about 20 percent of all claims submitted, and a significant share of claims are made for treatment for someone posing as the member. In many cases, the healthcare provider is part of the scam.

Medical schemes through improved technology and the introduction of managed care initiatives are trying to minimise the scale of fraud. Medscheme, through its subsidiary, has introduced a system that enables pharmacists to confirm medical aid membership and available benefits and have claims authorised before dispensing. Doctors and other service providers are also playing a role to eradicate fraud within the healthcare industry. Most medical schemes have introduced “fraud lines”, where all role-players within the healthcare industry can report fraudulent practices and remain anonymous.

## 2.9. Cost containment within the healthcare industry.

Cost containment is of vital importance to both funders and service providers. Most private hospitals have depended heavily on cross-subsidisation provided by their pharmaceutical profit. All healthcare providers are feeling the pinch as consumers try to limit their healthcare expenditure.

Service providers are accepting that, in return for improved rewards, they should share in the financial risks of patient care. All providers are recognising a need for mutual accountability regarding both cost management and quality of care. The priority for administrators is to maximise income and minimise cost and risk for their funds. Many administrators are entering into incentivised reimbursement arrangements with service providers and independent practitioner associations. Most administrators believe that the healthcare market has reached saturation point and they are also concerned about the effects of cost escalation on the market. A source of conflict may arise where administrators have a vested interest in promoting their own managed care programmes, as these earn them a fee from the medical scheme. (South African Healthcare Review of 2001).

This conflict of interests is at the heart of the problems which have faced the US managed healthcare system over the past decade. In South Africa, unlike the US, however, the providers dominate the private healthcare industry. Hospital groups and healthcare practitioners therefore have the potential to set the benchmarks with regard to cost and quality control for the industry, if they cooperate effectively with one another.

Several hospitals are introducing global fees, which include the cost of specialists and hospital care. The leader in this trend is Netcare, which has successfully run a programme on its own internal medical aid through Clinical Partners. Groups, which have adopted the global fee approach, believe it encourages effective cost management at every stage of the patient's care. As a result of this system, Netcare's medical scheme's reserves grew from zero to 34 percent up to 2001. Premium increases were below 10 percent in 2001, and doctors were paid 24 percent above BHF rates. Global fees based on effective cost management also enable medical

schemes to budget more accurately for certain procedures, based on actuarial evaluations and predictions.

Some providers however see the global fee structure as an ethical problem. The problem being, the inability to differentiate the professional's fee from other costs if they are packaged together. The quality of care patients receive could also be compromised. Practitioners are concerned that hospitals will ensure that in a loss situation they carry the least amount of risk and ultimately it will be the doctor who carries the loss.

Cost containment can only be sustained if there is workable relationship between all players within the healthcare industry. The historic barriers of distrust between funders, as risk managers, and providers are broken. In the US, the concept of physician health organisations is already established, and the same is likely to follow locally in the not so distant future.

Service providers have been hard hit by diminishing medical aid benefits. Many report a drop-off in business during the last quarter of the year, as patient's benefits are exhausted and they have to pay for their own medical care. Despite the economic pressure on service providers, in urban areas there is an over-supply of service providers relative to the number of medical aid members and minimal growth in the patient pool. An influx of service providers from the public sector into the private sector has exacerbated that situation.

## 2.10 Chronic medicine cover and your medical scheme.

New regulations, which were promulgated in 2002 in terms of the Medical Schemes Act, will prevent schemes from making members who suffer from chronic conditions pay more than other members, but only from 2004. In 2003, Bonitas, the country's second biggest scheme with almost 250 000 members have reduced its chronic limit benefit on its Standard option from R10 000 per beneficiary in 2002 to R4 000 per beneficiary with a family limit of R8000, in 2003.

Sarah Bennet, a healthcare consultant and actuary with NMG Levy, says the reduction of this benefit to 40 percent of what it was will affect 90 percent of Bonitas' members on the Standard option.

Mark Dawson, the manager of Oxygen, says that chronic ailments covered by the scheme have drastically been reduced, but 87 percent of members with chronic ailments will still be covered.

Pat Sidley, the spokesperson for the Council for Medical Schemes, says there has been a trend among schemes to cut chronic medication benefits and only offer comprehensive benefits on more expensive options. This is why the new regulations state that a scheme must cover the treatment of certain chronic conditions, she says. There are more than 20 common chronic conditions listed in the regulations including asthma, arthritis, diabetes, epilepsy, hypertension, multiple sclerosis and Parkinson's disease. By making these benefits mandatory, the government, on the council's recommendation, hopes to stamp out attempts to rate members on the risk they pose to a scheme. The Medical Schemes Act introduced the principle of community rating, whereby members of a scheme pay the same rates for cover regardless of their state of health. However, by making chronic benefits only available at higher contribution

levels, people with chronic conditions are effectively being risk-rated, the council has argued.

Also in the newly listed prescribed minimum benefits that will come into effect in 2004, are some pertaining to HIV/AIDS. These relate mostly to the prevention of the disease. Schemes will, however, still not be obliged to offer members life-prolonging anti-retrovirals.

## 2.11. Medical scheme brokers.

Regulations within the Medical Scheme Act will boost medical aid brokers above the position of door-to-door salespeople. Up until now, the manner in which medical aid brokers conducted their business remained largely unregulated. The regulations of the Medical Schemes Act as well as the proposals by the Financial Advisers' Bill, will knock medical aid brokers into a very straight line.

Consumers will benefit from the regulations, which propose that medical aid brokers have minimum qualifications and experience. The regulations also impose a maximum commission for health policies, and there will be a code of conduct and compulsory accreditation for all brokers.

A new independent industry body, Association of Health Benefits Advisers (AHBA), was formed to represent medical aid brokers so that they don't get the short end of the legislation stick. The birth of the industry body is hardly surprising: the legislation on the cards will vastly change the way brokers conduct their business.

A regulation, which is sure to hurt brokers, is that they will be forced to disclose to clients their commission- even if it is paid directly by the medical scheme in question. Brokers will also need government accreditation before they can conduct business. It is still not clear whether the Department of Health or the Financial Services Board will take on this roll. Accreditation will be reviewed annually, while brokers will have to abide by the service standards and code of conduct provided by the Department of Health.

The new regulation proposes that brokers be paid a maximum of 3 percent commission of a client's medical aid contribution in the first year of membership. The current average is between 8 and 10 percent, with some medical schemes paying as much as 13.5 percent to the broker.

There is also debate over the regulation, which requires minimum qualifications and experience before an individual can be accredited as a medical aid broker. Regulation proposes that "a recognised education or qualification, for the purposes of regulation, means-a Bachelors degree or an equivalent three year qualification, and a minimum of one year's experience as a broker in the health care business; or a minimum of four years experience as a broker in the health care business".

Several brokers however argued that these stipulations would exclude several of them who currently earn a living in the field. Robert Dale, a member of AHBA's steering committee, says the organisation's aim is to act as a single voice for the industry, but it hopes that the Department of Health will allow it to run the accreditation process.

Patrick Masobe, Director of Health Financing for the Department of Health, firmly believes that a state association will regulate the industry. It therefore seems that a government watchdog is set to take guard over the industry.

All the role-players within the medical aid industry agree that brokers have the potential to significantly contribute to a more stable medical scheme environment, and to expand medical scheme coverage to previously uncovered individuals. However, if motivated by perverse financial incentives rather than the best interests of members and the medical scheme environment as a whole, health brokers can potentially significantly contribute to the instability of the environment. For example, while advising members or employer groups to move from one medical scheme to another may be the best advice in a particular circumstance, if motivated purely by financial incentive, it could contribute to large-scale churning in the medical schemes environment which significantly undermines the administration process and adds to administrative costs for medical schemes.

## 2.12. Healthcare for the lower-income market.

Market penetration by medical aids reflects the historic imbalances of apartheid. While the white market is 70 percent covered, the black, coloured and Asian markets all have less than 30 percent penetration by medical aids. Total market penetration of the entire population is around 16 percent, mainly because a large proportion of the population cannot afford conventional medical aid cover. (Council for Medical Schemes).

Market research by T.W.I.G. SA indicate that half a million South Africans who are employed but not covered by medical aid could afford to contribute to a basic product. About two-thirds were never invited to join their employer's medical aid, while the balance felt that premiums were too expensive and employers were

unwilling to contribute. According to the research, this perception was often false, since a significant number of individuals are spending more on healthcare than they would pay for cover.

The general view is that, until legislation forces all employees into some kind of cover, this market will not achieve its full growth potential. Conflict with management appears to be a common problem in this market. In some cases management will allow a medical benefit, but will put a cap on the number of people who may belong. Another problem is that many workers are paid weekly making collection of a monthly premium difficult. A high level of flexibility is also required, as members will want to go on and off the medical aid depending on their availability of funds. The extra administration involved will drive up costs.

#### 2.13. Government's future plan for civil servants.

At the beginning of 2004, government plans to place all public servants on a single medical scheme. Industry observers are predicting a better deal for consumers, a stronger public healthcare system and more effective administration for government. For medical schemes and administrators however, the picture may not seem too rosy, as several small players are not likely to survive.

At present, public servants can choose from any of the 40-plus open medical schemes registered under the Medical Schemes Act. Government subsidises two-thirds of their monthly contributions, up to a ceiling of R1 014. In 2002, this created an estimated bill of R4.5 billion, despite leaving half the state's employees out of the loop with just more than 450 000 of government's 890 000 plus employees being members of

medical schemes. (National Health Accounts: Private and Public sector report for 2002).

Many of government's employees simply cannot afford private medical insurance; those that can are subject to a varying basket of care across the many schemes. In addition, managing payments to a plethora of schemes and administrators is a nightmare, and does enable government to use its purchasing power to negotiate a better deal for its employees.

Consultants appointed by government are presently developing the finer details of the scheme's operations. The tender document point towards a scheme with a medical savings account, and industry sources say there are likely to be up to five benefit options. The basic package will provide chronic medication cover, a disease management programme inclusive of HIV/AIDS and unlimited hospital cover, based on public-private partnerships.

The intention is for government to reduce the costs of hospital cover for its employees on a mandatory scheme (public facilities generally claim they can undercut their private counterparts by between 20 to 30 percent) while at the same time bringing much needed revenue to the over-stretched public healthcare system.

Brokers specialising in public service employees will be hard hit, and industry sources warn that the smaller medical schemes, and those with a high proportion of government employees on their books, also face an uncertain future.

Even a scheme as large as Discovery, which covers 1.25 million lives, will feel the bite, as 60 000 of its members move elsewhere. However, losing members may be offset by gains on the administrative side of the business. Administration of the proposed medical scheme will be a mammoth undertaking likely to be divided between four and five of the country's top administrators. The likes of Discovery,

Medscheme, Metropolitan Health Group and Old Mutual Healthcare are all reported to be lining up their black economic empowerment credentials in anticipation of the bidding process.

#### 2.14. Future trends within the medical aid industry.

Members within the medical aid industry are now beginning to recognise the need to change their mindset rather than respond negatively to the changes forced upon them by the Medical Schemes Act. Employees are given greater freedom as to their choice of medical schemes. Inflation in the cost of premiums is a single most important destroyer of most schemes as the healthier and younger members are being lost. In the future, some industry members expect medical aids to focus on hospitalisation and major medical care.

To encourage members to take more responsibility for their day-to-day medical costs the industry, led by Discovery, has begun developing loyalty programmes and linking savings account to healthcare insurance schemes. There is also a strong trend towards wellness programmes such as joining the gym, discounted holiday packages and cheap movie entrances.

Consumers are likely to become more demanding as they pay more from their pockets. They are likely to demand cheaper medication and question whether certain procedures are really necessary. This is expected to force providers to accept lower profit margins, while servicing more patients.

At the lower income end of the market, capitation, with all of the patient's needs being met in a clinic environment, seems to offer the best solution. Prime Cure, Carecross and Medicross have already adopted this approach. (Private Healthcare in SA Today).

## 2.15. Conclusion

In this chapter, the various factors that influence the healthcare industry in South Africa were discussed. The healthcare environment and more specifically changes within the medical aid industry is developing at an astronomical pace and becoming increasingly difficult to manage for both government and the various role-players within the medical aid industry.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1. Introduction

The research methodology explains the strategy used to test the various hypotheses used. It includes details of the population, sampling techniques, the instrument used and its construction, the scales used and the manner of administration of the questionnaire.

#### 3.2. Selection of Participants

A systematic probable sample selection (Black patients that belong to a medical scheme) was drawn from the population of Black medical aid patients attending the researcher's pharmacy over a one week period. Therefore each random selection will ensure that each element is given a known and equal chance of selection. The measuring instrument is a questionnaire. The carefully structured questionnaire, incorporating a Likert type scale, chosen after a pilot test will be drawn up to elicit reliable and valid responses from the chosen sample. The data is largely quantitative in nature. The questionnaire was administered to subjects at the start of the fieldwork of the research. The purpose of the administration of the questionnaire is to provide biographical and factual behavioral / attitudinal data on Black patients towards their medical aid schemes. This provides the basis for an in-depth statistical analysis of the

responses to the questionnaire. Statistical techniques using SPSS, including correlation and multiple regression analysis was used to analyze the data.

### 3.3. Definition of sampling

By sampling, one selects some of the elements of the population, so that they can draw inferences about the entire population. The population element is the subject on which the measurement is being taken and in this case is Black patients on medical aid schemes. The members of a sample are selected on a probability basis or other means. Probability sampling is random selection—"a controlled procedure that assures that each population element is given a known non-zero chance of selection". (Cooper and Schindler: 218) Non-probability sampling is non-random and subjective. The technique used in this research was probability sampling i.e. systematic random selection of participants.

### 3.4. Data Collection

#### 3.4.1. Questionnaire

There are really two alternatives to gather primary data. We can observe conditions or communicate with people. The communication process involves surveying people and recording their responses for analysis. The great strength of using a questionnaire is its versatility. Abstract information of all types can be gathered. Using a questionnaire is an efficient and economical way of gathering primary data.

The questionnaire also has its shortcomings. The major weakness being the quality and quantity of information secured depends heavily on the ability and willingness of the respondents to cooperate. Furthermore the response rate can be quite low.

### 3.4.2. Construction of the Questionnaire

The questionnaire was constructed using multidimensional scales. All the questions were closed-ended. The first part of the questionnaire contained questions relating to biographical data, namely, age, gender, marital status, level of education, sector of employment and number of dependents.

In the second part, questions 9 to 26, the purpose of the questions was to determine the degree of knowledge the respondents had about the operations, the illness conditions, service providers and benefits of their medical scheme. Respondents were requested to answer yes, no, or not sure to the selected questions.

The third part of the questionnaire, questions 27 to 43, contained questions that were rated on a 5 point Likert scale, ranging from strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. The purpose of these questions was to ascertain the respondent's use of and attitudes towards his medical aid scheme.

Question 8 examined whether the respondent chose his own medical aid scheme.

#### 3.4.2.1.Dimensions

Three distinct dimensions were examined. The dimensions were the respondent's knowledge, use of and attitudes towards his medical aid scheme.

Under knowledge, the following was examined:

- ◆ Knowledge of operations
- ◆ Knowledge of illness conditions
- ◆ Knowledge of service providers
- ◆ Knowledge of benefits, and
- ◆ Knowledge of the different groups of medication.

Under use of and attitudes, the following was examined:

- ◆ Information received and required from administrators
- ◆ Medical benefits offered
- ◆ Contributions
- ◆ Membership
- ◆ Profitability
- ◆ Payment of claims, and
- ◆ Medical aid brokers

### 3.4.2.2.Scales

43 questions, including biological data, were included in the questionnaire. 17 questions (question 27 to 43) were designed using a Likert scale. According to Cooper and Schindler, (1998) the Likert Scale is the most frequently used variation of the summated rating scale and includes statements that express either a favorable or unfavorable attitude towards the object of interest. Respondents were asked to choose

between five levels of agreement. A Numerical scale was used for the responses to the biographical data. A rating scale was used to establish the respondent's use off and knowledge of their medical schemes (questions 8 to 26). Dichotomous Response Questions were also included in the questionnaire. Dichotomous choices are useful when something is a fact, or it is not, or a respondent can either recall or not recall information.

### 3.5. Pilot Study

According to Cooper and Schindler (1998), a pilot test is conducted to detect weaknesses in the design and instrumentation and provide proxy data for selection of a probability sample. Six patients were chosen to answer the prepared questionnaire and were thereafter asked to comment on the following:

- ◆ Sources if confusion and vagueness
- ◆ Question value – does the questions provide useful information
- ◆ Appropriateness of the proposed response formats and suggestions for improvement
- ◆ Gaps in question coverage
- ◆ Any ambiguity in the questions, and
- ◆ Time taken to complete the questionnaire.

After this critique, the questionnaire was revised and prepared for distribution. The results of the pilot study were not analysed and therefore did not form part of the analysis.

### 3.6. Administration

Sixty-one Black patients that belonged to a medical aid scheme were asked to complete the questionnaire over a one-week period at the researcher's pharmacy.

### 3.7. Data capturing and processing

The data was captured on an Excel spreadsheet, and was processed using the statistical package SPSS.

### 3.8. Data Analysis

The data obtained was edited, coded, categorised and computer analysed.

### 3.9. Definition of Descriptive statistics

Descriptive statistics describe the phenomena of interest. Mathematical computations describe the important characteristics of the sample. Analysis was obtained for the different dimensions being measured. The measures of location, namely the mean and the mode were obtained. The measures of spread were also obtained.

### 3.10 Validity and Reliability

Content validity of the instrument will be assessed using factor analysis. Reliability will be assessed using the Cronbach Alpha. A pilot study to refine the questionnaire will be used to enhance the validity of the research. Further drafts of the questionnaire will be tested for clarity and precision of the questions in terms of the ability to abstract information relevant to the critical questions guiding the research.

The Kaiser-Olken Measure of sample adequacy was 0.672 (KMO and Barlett's test-Appendix 2). Since the study was exploratory in nature the sample was considered acceptable.

The Cronbach Coefficient Alpha of the study is .7236 indicating that the results were reliable.

Rotated Factor Matrix (Appendix 2).

Six items load significantly on Factor 1 (i.e. explains more than 10 percent of the variance) with items with the highest factor loading suggesting the underlying dimension of joining or not joining a medical aid scheme. Factor 1 may therefore be interpreted as Membership Decision.

Four items load significantly on Factor 2 (i.e. explains more than 10 percent of the variance) with items with the highest factor loading suggesting the underlying

dimension of information and feedback from the medical aid scheme. Factor 2 may therefore be interpreted as Correspondence and Feedback.

Three items load significantly on Factor 3 (i.e. explains more than 10 percent of the variance) with items with the highest factor loading suggesting the underlying dimension of cost of medical aid membership. Factor 3 may therefore be interpreted as The Cost Factor.

Three items load significantly on Factor 4 (i.e. explains more than 10 percent of the variance) with items with the highest factor loading suggesting the underlying dimension of benefits offered by the medical aid scheme. Factor 4 may therefore be interpreted as Benefits Offered.

### 3.11. Output

A key output from the research will be a better understanding of the knowledge, use of and attitudes of Black patients towards their medical aid schemes. The research will be both descriptive and inferential where specific hypotheses are tested. It intends to describe the phenomena as they currently exist.

### 3.12 Ethical Issues

Because of the very sensitive nature of my study, ethics were a matter of concern in my study and were given high priority. According to Cooper and Schindler (1998), ethics are norms and standards of behavior that guide moral choices about our behavior and our relationships with others. The goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from research activities. With this in mind, I included in the introduction of my questionnaire the following:

- ◆ A brief explanation of the benefits expected from the research
- ◆ The time expected to be spent on completing the questionnaire
- ◆ That confidentiality of their responses and the anonymity of the respondents will be maintained at all times
- ◆ That participation in the study was voluntary and that they had the right to withdraw if they so pleased.

### 3.13. The Limitations of the Study

The study was carried out on only those Black patients that attended the researcher's pharmacy over the study week. It therefore does not cover the entire population of Black patients on medical aid schemes.

The questionnaire was administered in English only. This may not be the preferred language of choice for all the participants.

### 3.14 Conclusion

Through the use of the SPSS statistical package it was possible to generate both descriptive and inferential data relating to specific hypotheses.

## CHAPTER FOUR

### FINDINGS

#### 4.1. Introduction

Analysis of data was completed with statistical calculation of measures of location, measures of spread, correlation, t-test, ANOVA and chi-square. The validity and reliability of the measuring instruments was determined using factor analysis.

#### 4.2. Results of the Study

The results of the study were generated using descriptive and inferential statistics.

##### 4.2.1. Descriptive Statistics

Figure 4.1. Sample composition by Age

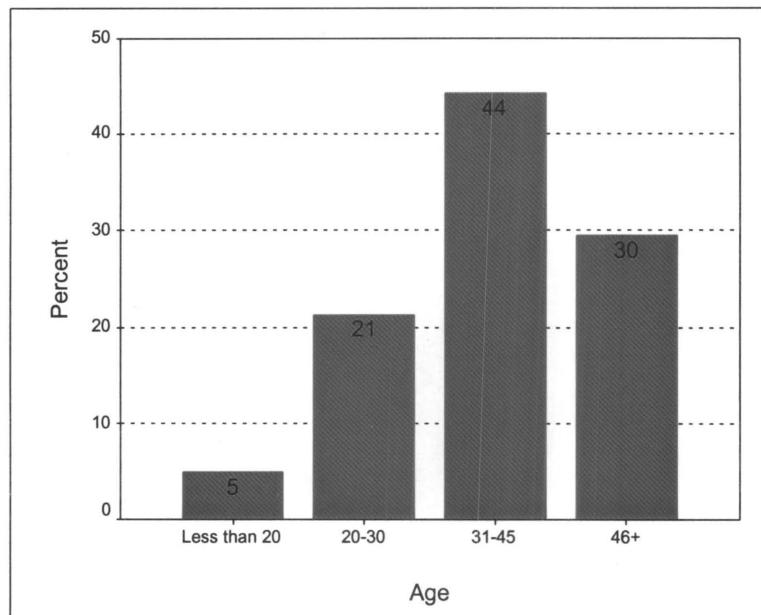


Figure 4.1. illustrates the composition of the sample in terms of age. It is evident that the majority of the respondents fell into the category of 31-45 (44%). 21% of respondents were between the 20-30 year age group while 30% were over the 46-year age group.

Figure 4.2. Sample composition by Gender

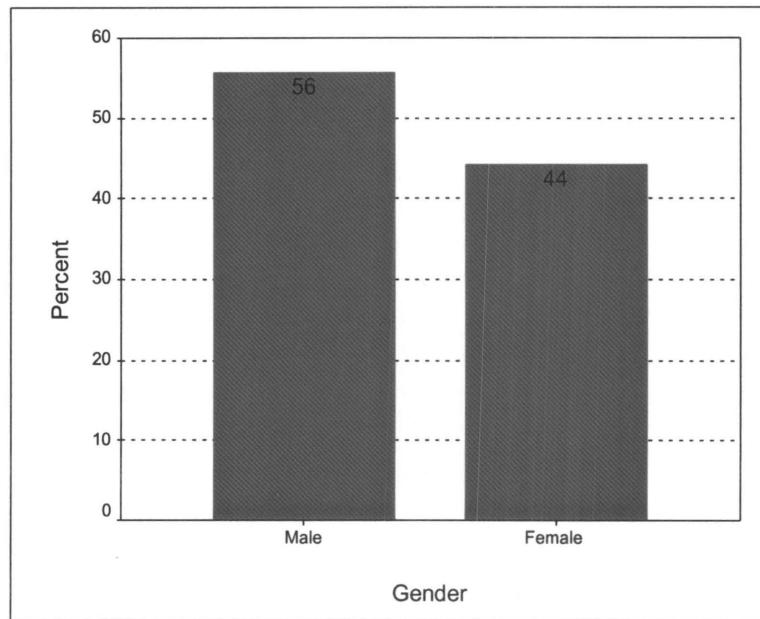


Figure 4.2. illustrates the sample composition by gender. 56% of the respondents were males and 44% of the respondents were female. This represents a fairly reasonably mix of males and females within the chosen subjects.

Figure 4.3. Sample composition by Marital Status

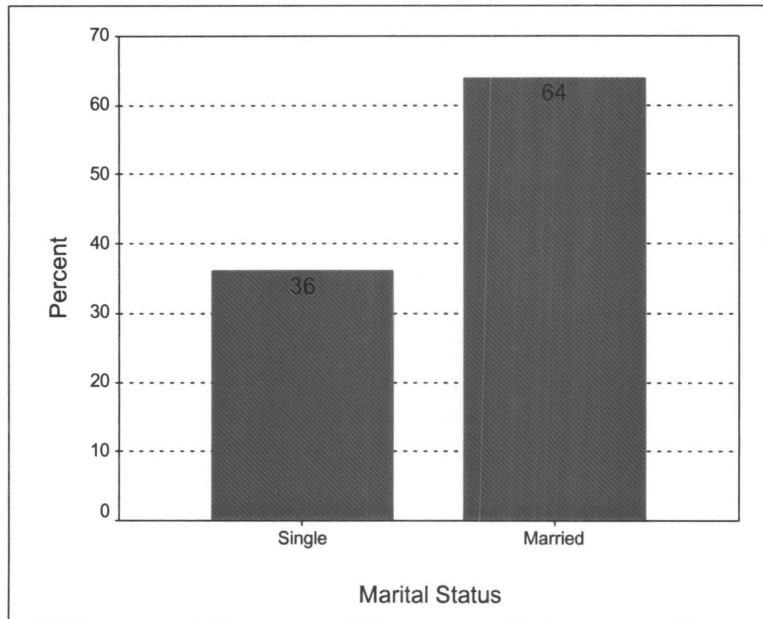


Figure 4.3. reflects that 64% of the respondents to be married and 36% to be single.

Figure 4.4. Sample composition by Level of Education

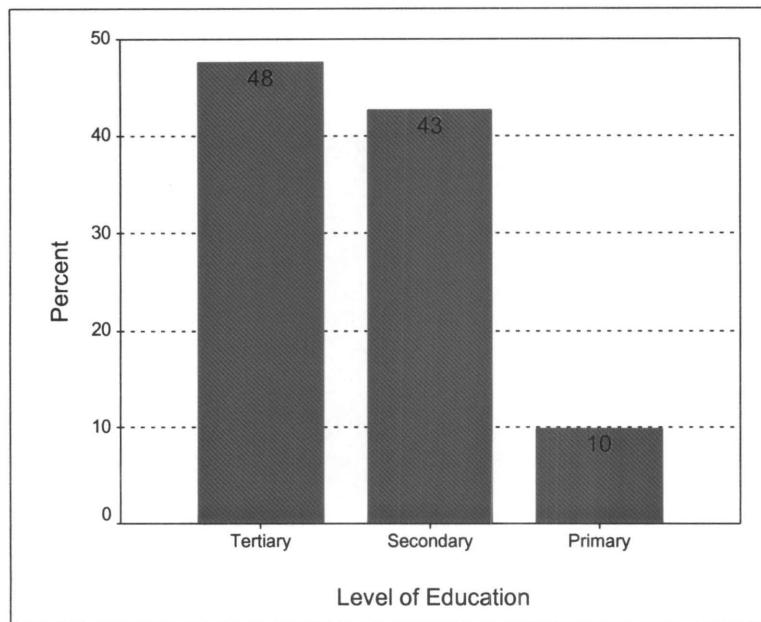


Figure 4.4. illustrates that 47% of the respondents had some form of tertiary education, 43% had a secondary education and 10% had a primary education. The chosen sample had therefore a reasonable level of education.

Figure 4.5. Sample composition by Sector of Employment

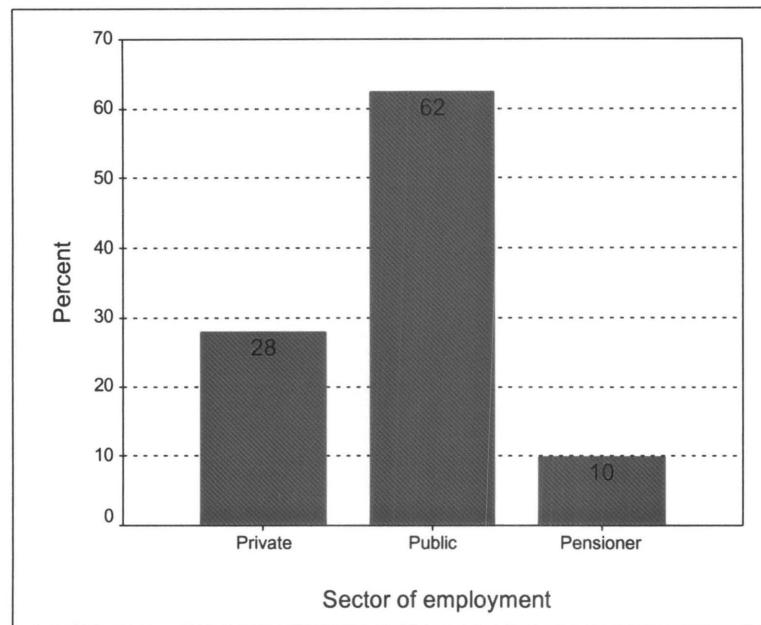


Figure 4.5. represents respondents by Sector of Employment. 62% of the respondents were from the public sector, 28% from the private sector and 10% were pensioners. This is reflective of the fact that most Black patients on medical aid schemes are employed in the public sector.

Figure 4.6. Sample composition by Number of Dependents

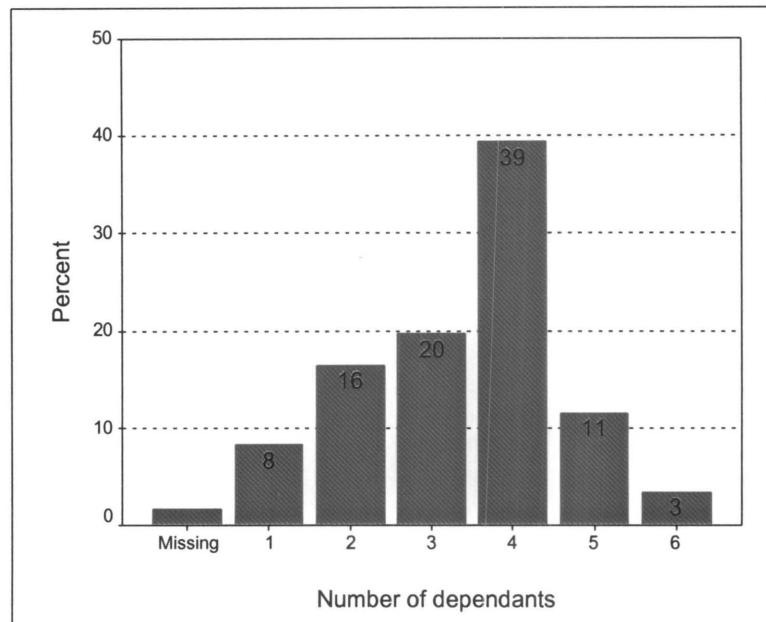
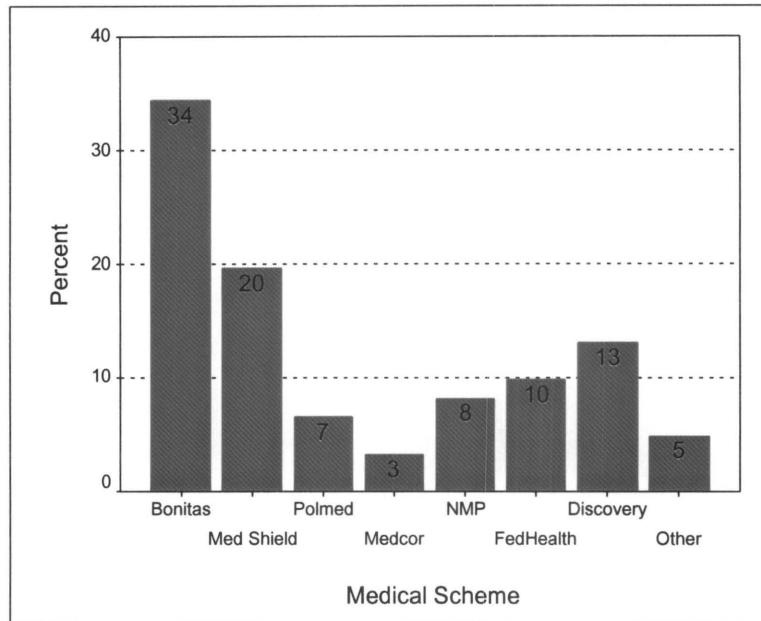


Figure 4.6. represents the number of dependents of the sample. 75% of respondents had either 3 or more dependents per family registered on their medical aid scheme.  
40% of the above had 4 dependents registered per family

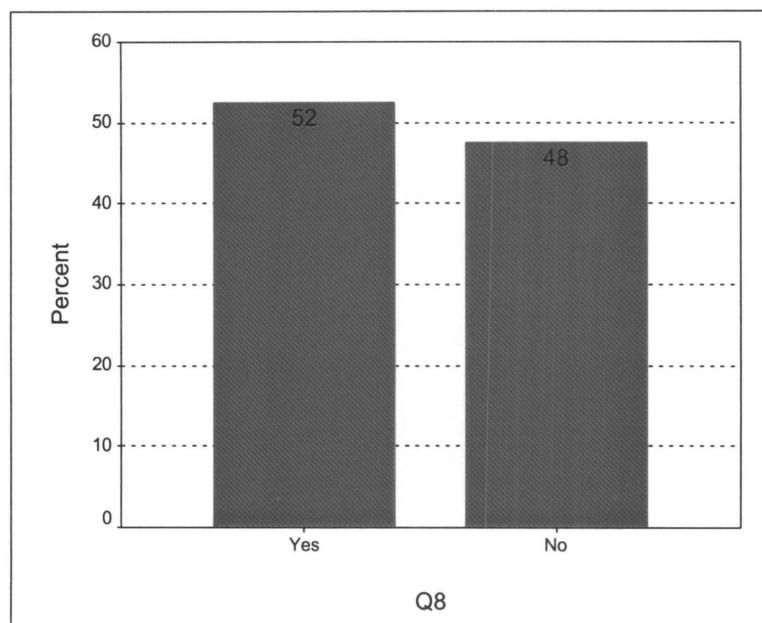
Figure 4.7. Sample composition by respective Medical Aid Schemes



Most respondents belong to Bonitas (34%), followed by Medshield (20%).

Respondents that belong to these medical aid schemes are generally from the public sector. 8% of respondents belong to NMP and 13% to Discovery Health. Respondents that belong to these schemes are generally from the private sector.

Figure 4.8. Q8. Did you choose your own medical aid scheme?



52% of the respondents choose their own medical aid scheme while 48% either joined because their company belonged to that specific scheme or a broker encouraged them to join that scheme.

#### 4.2.1.2. Key Dimensions of the study

The key dimensions of the study are knowledge, use of and attitudes towards medical aid schemes.

For the purpose of analysis, knowledge of medical schemes is further divided into various sub-sections:

- ◆ Operations of the Scheme (Questions 9,15,17,18,21,23 and 26)
- ◆ Illness Conditions (Questions 11 and 12)
- ◆ Generic Medication (Question 20)
- ◆ Service Providers (Questions 10 and 22)
- ◆ Benefits (Questions 13,16,19,24,25,)

Tables 4.1. to 4.6 – Knowledge of scheme operations

Table 4.1. Do you know the administrator of your Medical Aid Scheme?

**Q9**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	19	31.1	31.1	31.1
No	42	68.9	68.9	100.0
Total	61	100.0	100.0	

Table 4.2. Do you know the total contributions of your Medical Aid Scheme? (employer and employees contribution)

**Q15**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	20	32.8	32.8	32.8
No	24	39.3	39.3	72.1
Not sure	17	27.9	27.9	100.0
Total	61	100.0	100.0	

Table 4.3. Do you understand the rules and regulations pertaining to your benefits?

**Q17**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	4.9	4.9	4.9
	No	12	19.7	19.7	24.6
	Not sure	46	75.4	75.4	100.0
	Total	61	100.0	100.0	

Table 4.4. Do you need pre-authorisation for specialised procedures and hospitalisation?

**Q18**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	47.5	47.5	47.5
	No	4	6.6	6.6	54.1
	Not sure	28	45.9	45.9	100.0
	Total	61	100.0	100.0	

Table 4.5. Do you understand the contents of your monthly statements?

**Q21**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	27.9	27.9	27.9
	No	33	54.1	54.1	82.0
	Not sure	11	18.0	18.0	100.0
	Total	61	100.0	100.0	

Table 4.6. Does your Medical Aid Scheme pay according to the scale of benefits to service providers?

**Q23**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	37.7	37.7	37.7
	Not sure	38	62.3	62.3	100.0
	Total	61	100.0	100.0	

69% of respondents did not know the administrator of their medical aid scheme. 40% of respondents do not know their total contributions towards their medical aid scheme, while 28% were not sure. An alarming 75% of respondents were not sure of the rules and regulations pertaining to their benefits. 46% of respondents were not sure whether they require pre-authorisation for specialised procedures and hospitalisation. 54% of respondents do not understand the contents of their monthly statements. 62% of respondents were not sure if their medical aid schemes pay according to the scale of benefits to service providers. 43% of respondents thought their medical aid schemes are profit organisations while 46% were not sure.

Table 4.7 to 4.8. Knowledge of acute and chronic illness conditions. (Questions 11 and 12)

Table 4.7. Do you understand what a chronic illness condition is?

**Q11**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	23	37.7	37.7	37.7
No	38	62.3	62.3	100.0
Total	61	100.0	100.0	

Table 4.8. Do you understand the difference between a chronic illness and acute illness condition?

**Q12**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	22	36.1	36.1	36.1
No	39	63.9	63.9	100.0
Total	61	100.0	100.0	

63% of respondents did not know what a chronic illness condition is. 64% of respondents do not know the difference between an acute and a chronic illness condition.

Table 4.9. Do you know what generic medication is?

**Q20**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	14	23.0	23.0	23.0
No	42	68.9	68.9	91.8
Not sure	5	8.2	8.2	100.0
Total	61	100.0	100.0	

69% of respondents did not know what a generic medication is.

Table 4.10 to 4.11. Knowledge of service providers

Table 4.10. Do you ask for discounts from your service providers?

**Q10**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	2	3.3	3.3	3.3
No	59	96.7	96.7	100.0
Total	61	100.0	100.0	

Table 4.11. Are you at all times aware of the charges made by service providers?

**Q22**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	10	16.4	16.4	16.4
No	46	75.4	75.4	91.8
Not sure	5	8.2	8.2	100.0
Total	61	100.0	100.0	

97% of respondents do not ask their service providers for discounts while 75% of respondents are unaware of the charges levied by service providers.

Table 4.12. to 4.16. Knowledge of the various benefits and options offered by medical schemes

Table 4.12. Are you aware of the different benefit options that your Medical Aid Scheme offers?

**Q13**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	41.0	41.0	41.0
	No	36	59.0	59.0	100.0
	Total	61	100.0	100.0	

Table 4.13. Are you aware of all the benefits offered by your Medical Aid Scheme?

**Q16**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	9.8	9.8	9.8
	No	12	19.7	19.7	29.5
	Not sure	43	70.5	70.5	100.0
	Total	61	100.0	100.0	

Table 4.14. Does your Medical Aid Scheme pay for alternate medicine? (e.g. Homeopathic medication)

**Q19**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	6.6	6.6	6.6
	No	7	11.5	11.5	18.0
	Not sure	50	82.0	82.0	100.0
	Total	61	100.0	100.0	

Table 4.15. Does your Medical Aid Scheme pay for surgical and medical appliances? (e.g. Glucometers, nebulisers, wheelchairs etc.)

**Q24**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	31.1	31.1	31.1
	No	5	8.2	8.2	39.3
	Not sure	37	60.7	60.7	100.0
	Total	61	100.0	100.0	

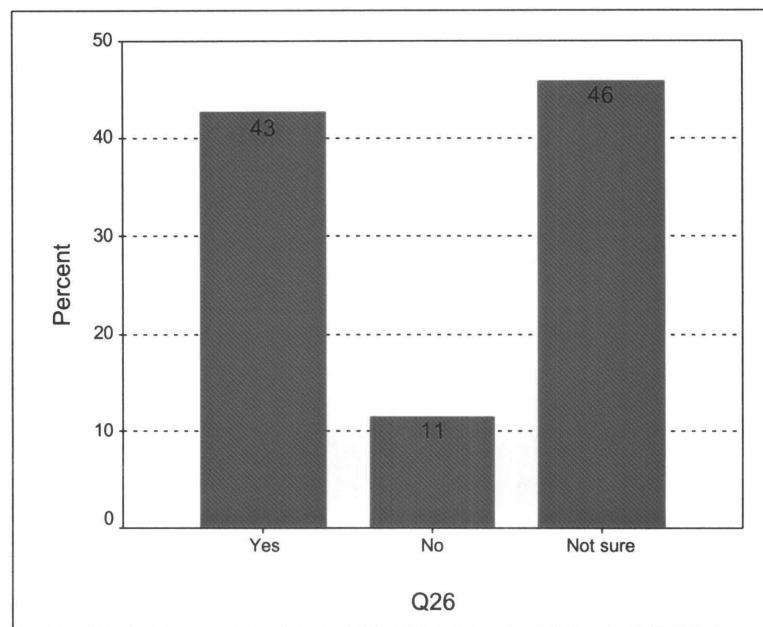
Table 4.16. Are your annual benefits restricted for consultations, medication, dentistry etc?

**Q25**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	49	80.3	80.3	80.3
	No	4	6.6	6.6	86.9
	Not sure	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

59% of respondents are not aware of the various membership options offered by their medical aid scheme. 71% of respondents are nor sure of all the benefits offered by their medical aid scheme. 82% were not sure if their medical aid schemes paid for alternate medicine for example homeopathic medication. 61% were not sure if their medical scheme paid for medical and surgical appliances. 80% agreed that their annual benefits were restricted for consultations, medications, dentistry etc.

Figure 4.9. Are medical schemes profit organisations?



43% of respondents believe that medical aid schemes are profit organisations, while 46% are not sure. Only 11% of respondents are aware that medical aid schemes are non-profit organisations.

## HYPOTHESIS 1

There is a relationship between the respective biographical variables (age-Q1, gender-Q2, marital status-Q3, level of education-Q4 and sector of employment-Q5) and knowledge of the scheme administrator (Q9).

The respondent's knowledge of the scheme administrator is independent of the various biographical variables age, gender, marital status and level of education. (Appendix 4-7). We therefore accept the null hypothesis and reject the alternate for these biographical variables.

Table 4.17. Crosstab- Sector of Employment (Q5) and Knowledge of Scheme Administrator (Q9)

Crosstab

Sector of employment	Private	Q9		Total
		Yes	No	
Public	Count	10	7	17
	% of Total	16.4%	11.5%	27.9%
Pensioner	Count	9	29	38
	% of Total	14.8%	47.5%	62.3%
Total	Count		6	6
	% of Total		9.8%	9.8%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.773 <sup>a</sup>	2	.008
Likelihood Ratio	11.036	2	.004
Linear-by-Linear Association	9.431	1	.002
N of Valid Cases	61		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.87.

Sector of employment and knowledge of scheme administrator are however related.

Respondents belonging to the private sector are more knowledgeable of the scheme administrator than respondents from the public sector and pensioners.

We therefore conclude that the respondent's knowledge of the scheme administrator is independent for all the other biographical variables except the sector of employment. We therefore accept the null hypothesis and reject the alternate for all the other biographical variables except the variable, sector of employment.

## HYPOTHESIS 2

There is a relationship between the respective biographical variables (age-Q1, gender-Q2, marital status-Q3, level of education-Q4 and sector of employment-Q5) and the respondents awareness of their total contributions to the medical aid scheme (Q15).

Table 4.18. Crosstab - Sector of Employment (Q5) and Total contributions to Medical Aid Scheme (Q15)

Crosstab					
		Q15			Total
		Yes	No	Not sure	
Sector of employment	Private	Count	16		17
		% of Total	26.2%		27.9%
	Public	Count	2	22	38
		% of Total	3.3%	36.1%	62.3%
	Pensioner	Count	2	2	6
		% of Total	3.3%	3.3%	9.8%
Total		Count	20	24	61
		% of Total	32.8%	39.3%	27.9%
					100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.462 <sup>a</sup>	4	.000
Likelihood Ratio	48.247	4	.000
Linear-by-Linear Association	16.196	1	.000
N of Valid Cases	61		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is 1.67.

The respondent's awareness of their total contributions to the medical aid scheme is independent of the various biographical variables age, gender, marital status and level of education (Appendix 8-11). We hence accept the null hypothesis and reject the alternate for these variables.

The variable, sector of employment, is however related to the respondent's awareness of his total contribution to his medical aid scheme. 94% of respondents from the private sector are aware of their total contributions towards their medical scheme while 6% was not sure. The majority of respondents from the public sector either did not know or were not sure of their total contributions.

The respondent's awareness of their total contributions towards their medical aid scheme is related to their sector of employment. In this case we accept the hypothesis.

### HYPOTHESIS 3

There is a relationship between the biographical variables (age-Q1, gender-Q2, marital status-Q3, level of education-Q4 and sector of employment-Q5) and the respondents understanding of the rules and regulations pertaining to their medical aid benefits (Q17).

The respondent's knowledge of the rules and regulations pertaining to their benefits is independent and not related to the biographical variables (Appendix 12-16).

We therefore accept the null hypothesis and reject the alternate.

## HYPOTHESIS 4

There is a relationship between the various biographical variables (age-Q1, gender-Q2, marital status-Q3, level of education-Q4 and sector of employment-Q5) and the respondents understanding of the contents of their monthly medical aid statement (Q21).

Table 4.19. Crosstab - Level of Education Q4) and the respondent's understanding of the contents of their monthly medical aid statement (Q21).

**Crosstab**

Level of Education	Tertiary	Q21			Total
		Yes	No	Not sure	
% of Total	Count	16	8	5	29
	% of Total	26.2%	13.1%	8.2%	47.5%
% of Total	Count	1	19	6	26
	% of Total	1.6%	31.1%	9.8%	42.6%
% of Total	Count		6		6
	% of Total		9.8%		9.8%
Total	Count	17	33	11	61
	% of Total	27.9%	54.1%	18.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.108 <sup>a</sup>	4	.000
Likelihood Ratio	28.428	4	.000
Linear-by-Linear Association	6.348	1	.012
N of Valid Cases	61		

a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is 1.08.

Table 4.20. Crosstab - Sector of employment (Q5) and the respondent's understanding of the contents of their monthly medical aid statement (Q21).

**Crosstab**

			Q21			Total
			Yes	No	Not sure	
Sector of employment	Private	Count	8	4	5	17
		% of Total	13.1%	6.6%	8.2%	27.9%
	Public	Count	8	27	3	38
		% of Total	13.1%	44.3%	4.9%	62.3%
Pensioner	Pensioner	Count	1	2	3	6
		% of Total	1.6%	3.3%	4.9%	9.8%
Total		Count	17	33	11	61
		% of Total	27.9%	54.1%	18.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.370 <sup>a</sup>	4	.004
Likelihood Ratio	15.045	4	.005
Linear-by-Linear Association	1.599	1	.206
N of Valid Cases	61		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is 1.08.

From the above results we conclude that the respondents understanding of the contents of their medical aid statements is related to the level of education and sector of employment with 55% of respondents with a tertiary education and 47% of respondents from the private sector answering yes to this question. We therefore accept the null hypothesis and reject the alternate for these variables.

We also conclude that the respondents understanding of their monthly medical aid statements are not associated with age, gender and marital status (Appendix 17-19). Hence we reject the null hypothesis and accept the alternate for these three variables.

## HYPOTHESIS 5

The respondent's knowledge of the medical scheme administrator (Q9) is dependent on the Medical Aid Scheme he belongs to (Q7).

Table 4.21 Crosstab - Knowledge of Scheme Administrator (Q9) and Medical Scheme (Q7)

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.463 <sup>a</sup>	7	.001
Likelihood Ratio	29.274	7	.000
Linear-by-Linear Association	2.063	1	.151
N of Valid Cases	61		

<sup>a</sup>. 12 cells (75.0%) have expected count less than 5. The minimum expected count is .62.

We conclude that the respondent's knowledge of the scheme administrator is related to the medical aid scheme he belongs to. We therefore accept the hypothesis.

## HYPOTHESIS 6

The respondent's knowledge of his total monthly medical aid contribution (Q15) is dependent on the Medical Aid Scheme he belongs to (Q7).

Table 4.22. Crosstab - Total monthly medical aid contribution (Q15) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.786 <sup>a</sup>	14	.000
Likelihood Ratio	53.525	14	.000
Linear-by-Linear Association	7.065	1	.008
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .56.

We conclude that the respondent's knowledge of his total medical aid contribution is related to the medical aid scheme he belongs to. We therefore accept the hypothesis.

## HYPOTHESIS 7

The respondent's knowledge of the rules and regulations pertaining to his benefits (Q17) is dependent on the Medical Aid Scheme he belongs to (Q7).

Table 4.23. Crosstab - Rules and Regulations pertaining to benefits (Q17) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.704 <sup>a</sup>	14	.177
Likelihood Ratio	17.900	14	.211
Linear-by-Linear Association	2.470	1	.116
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .10.

We conclude that the respondent's knowledge of the rules and regulation pertaining to his benefits is not related to the medical aid scheme he belongs to. We therefore reject the null hypothesis and accept the alternate.

## HYPOTHESIS 8

The respondent's knowledge of the need for pre-authorisation (Q18) is dependent on the Medical Aid Scheme he belongs to (Q7).

Table 4.24. Crosstab - Knowledge of the need for pre-authorisation (Q18) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.197 <sup>a</sup>	14	.590
Likelihood Ratio	13.528	14	.485
Linear-by-Linear Association	.868	1	.352
N of Valid Cases	61		

a. 20 cells (83.3%) have expected count less than 5. The minimum expected count is .13.

We conclude that the respondent's knowledge of the need for pre-authorisation is not related to the medical aid scheme he belongs to. We therefore accept the null hypothesis and reject the alternate

## HYPOTHESIS 9

The respondent's knowledge of the contents of his medical aid statement (Q21) is dependent on the Medical Aid Scheme he belongs to (Q7).

Table 4.25. Crosstab - Knowledge of contents of Medical Aid Statement (Q21) and Medical Aid Scheme (Q7)

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	33.935 <sup>a</sup>	14	.002
Likelihood Ratio	35.760	14	.001
Linear-by-Linear Association	.629	1	.428
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .36.

We conclude that the respondent's knowledge of the contents of his medical aid statement is related to the medical aid scheme he belongs to. We therefore accept the hypothesis.

## HYPOTHESIS 10

The respondent's knowledge of the different benefit options offered by his medical aid scheme (Q13) is related to the medical aid scheme he belongs to (Q7).

Table 4.26. Crosstab - Knowledge of the different benefit options offered by the Medical Aid Scheme (Q13) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.860 <sup>a</sup>	7	.145
Likelihood Ratio	11.850	7	.106
Linear-by-Linear Association	.637	1	.425
N of Valid Cases	61		

a. 13 cells (81.3%) have expected count less than 5. The minimum expected count is .82.

From the results of the above table we conclude that the respondent's knowledge of the different benefit options offered by his medical aid scheme is independent of the medical scheme the respondent belongs to. We therefore accept the null hypothesis and reject the alternate.

## HYPOTHESIS 11

The respondent's knowledge of all the various benefits offered by his medical aid scheme (Q16) is related to the medical aid scheme he belongs to (Q7).

Table 4.27. Crosstab - Knowledge of all the various benefits offered (Q16) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.026 <sup>a</sup>	14	.604
Likelihood Ratio	13.978	14	.451
Linear-by-Linear Association	.505	1	.477
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .20.

From the results of the above table we conclude that the respondent's knowledge of the various benefits offered by his medical aid scheme is independent of the medical scheme the respondent belongs to. We therefore accept the null hypothesis and reject the alternate.

## HYPOTHESIS 12

The respondent's knowledge of whether his medical scheme pays for alternate medicine (Q19) is related to the medical aid scheme he belongs to (Q7).

Table 4.28. Crosstab - Knowledge of whether medical scheme pays for alternate medicine (Q19) and Medical Aid Scheme (Q19)

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.020 <sup>a</sup>	14	.761
Likelihood Ratio	12.358	14	.578
Linear-by-Linear Association	3.277	1	.070
N of Valid Cases	61		

<sup>a</sup>. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .13.

From the results of the above table we conclude that the respondent's knowledge of whether his medical scheme pays for alternate medicine is independent of the medical scheme the respondent belongs to. We therefore accept the null hypothesis and reject the alternate.

## HYPOTHESIS 13

The respondent's knowledge of whether his medical scheme pays for medical and surgical appliance (Q24) is related to the medical aid scheme he belongs to (Q7).

Table 4.29. Crosstab - Knowledge of whether medical scheme pays for medical and surgical appliances (Q24) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.172 <sup>a</sup>	14	.672
Likelihood Ratio	14.702	14	.399
Linear-by-Linear Association	2.950	1	.086
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .16.

From the results of the above table we conclude that the respondent's knowledge of whether his medical scheme pays for medical and surgical appliances is independent of the medical scheme the respondent belongs to. We therefore accept the null hypothesis and reject the alternate.

## HYPOTHESIS 14

The respondent's knowledge of whether his annual benefits are restricted for consultation, medication etc (Q25) is related to the medical aid scheme he belongs to (Q7).

Table 4.30. Crosstab - Knowledge of whether annual benefits are restricted (Q25) and Medical Aid Scheme (Q7)

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.896 <sup>a</sup>	14	.212
Likelihood Ratio	18.399	14	.189
Linear-by-Linear Association	1.020	1	.313
N of Valid Cases	61		

a. 21 cells (87.5%) have expected count less than 5. The minimum expected count is .13.

From the results of the above table we conclude that the respondent's knowledge of whether his annual benefits are restricted for consultations, medication etc is independent of the medical scheme the respondent belongs to. We therefore accept the null hypothesis and reject the alternate

## HYPOTHESIS 15

The respondent's knowledge of what is a generic medication (Q20) is dependent on the following biographical variables, age-Q1, gender-Q2, marital status-Q3, level of education-Q4 and sector of employment - Q5

Table 4.31. Crosstab - Knowledge of what is a generic medication (Q20) and Level of Education (Q4).

		Q20			Total
		Yes	No	Not sure	
Level of Education	Tertiary	Count	11	13	5
		% of Total	18.0%	21.3%	8.2%
	Secondary	Count	3	23	
		% of Total	4.9%	37.7%	42.6%
	Primary	Count		6	
		% of Total		9.8%	9.8%
Total		Count	14	42	5
		% of Total	23.0%	68.9%	8.2%
					100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.934 <sup>a</sup>	4	.003
Likelihood Ratio	19.211	4	.001
Linear-by-Linear Association	.876	1	.349
N of Valid Cases	61		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .49.

We conclude that respondent's knowledge of the definition of a generic medication is dependent on his level of education. We therefore accept the hypothesis for this variable.

We also conclude that the respondent's knowledge of the definition of a generic medication is independent of age, gender, marital status and sector of employment (Appendix 20-23). We therefore accept the null hypothesis and reject the alternate for these variables.

For the purpose of analysing the questionnaire, we have grouped the attitude/perception questions into various sub-groups each measuring the same perception/attitude:

- ◆ perception on information received and required from medical schemes (Q27;Q33;Q37)
- ◆ perception on benefits received (Q28;Q30;Q43)
- ◆ perceptions on contributions(Q29;Q40)
- ◆ perceptions on membership(Q31;Q36)
- ◆ perceptions on profitability of scheme (Q32;Q35)
- ◆ perception on payment of claims(Q41), and
- ◆ perceptions on medical aid brokers (Q42)

Table 4.32 to 4.34. Perception of information received and required

Table 4.32. I need more information about my medical aid scheme

**Q27**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not sure	5	8.2	8.2	8.2
	4	38	62.3	62.3	70.5
	5	18	29.5	29.5	100.0
	Total	61	100.0	100.0	

62.3% of respondents agreed with this statement, 29.5% strongly agreed while 8.2% were not sure. No respondent disagreed with this statement.

Table 4.33. I receive sufficient information about changes within my medical aid scheme.

**Q33**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	3	4.9	4.9	4.9
	Neither	3	4.9	4.9	9.8
	Disagree	52	85.2	85.2	95.1
	Strongly disagree	3	4.9	4.9	100.0
	Total	61	100.0	100.0	

85.2% of respondents disagreed with this statement, indicating that medical aid schemes are not informing their members of changes within the scheme.

Table 4.34. I am consulted enough about changes within the medical aid industry.

**Q37**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	3	4.9	4.9	4.9
	Disagree	58	95.1	95.1	100.0
	Total	61	100.0	100.0	

95.1% of respondents disagreed with this statement indicating that medical aid schemes are not consulting with their members before making changes within the scheme.

Tables 4.35. to 4.36. Perceptions of benefits received

Table 4.35. My medical aid scheme offers me sufficient acute medication benefit.

**Q28**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	1	1.6	1.6	1.6
	Agree	1	1.6	1.6	3.3
	Neither	10	16.4	16.4	19.7
	Disagree	41	67.2	67.2	86.9
	Strongly disagree	8	13.1	13.1	100.0
	Total	61	100.0	100.0	

67.2% of respondents disagreed with this statement. 13.1% strongly disagreed. 16.4% neither disagreed nor agreed.

Table 4.36. The benefits offered by my medical aid scheme are sufficient.

**Q30**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	2	3.3	3.3	3.3
	Neither	11	18.0	18.0	21.3
	Disagree	47	77.0	77.0	98.4
	Strongly disagree	1	1.6	1.6	100.0
	Total	61	100.0	100.0	

77% of respondents disagreed, 18% were unsure, 3.3% agreed and 1.6% strongly agreed with the above statement.

Tables 4.37 to 4.38. Perceptions of contributions

Table 4.37. My medical aid scheme is too expensive.

**Q29\_**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	16.4	16.4	16.4
	Agree	40	65.6	65.6	82.0
	Neither	9	14.8	14.8	96.7
	Disagree	2	3.3	3.3	100.0
	Total	61	100.0	100.0	

65.6% of respondents agreed, 16.4% strongly agreed, 14.8% were unsure and 3.3% disagreed with the above statement.

Table 4.38. Increases in medical aid scheme contributions are not justified.

**Q40\_**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	3.3	3.3	3.3
	Agree	47	77.0	77.0	80.3
	Neither	10	16.4	16.4	96.7
	Disagree	2	3.3	3.3	100.0
	Total	61	100.0	100.0	

77% of respondents agree with the above statement while 16.4% of respondents are unsure.

Tables 4.39 to 4.40. Perceptions of membership

Table 4.39. If my employer paid my medical aid scheme subsidy directly to my salary, I would still choose to join a medical aid scheme.

**Q31**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	3.3	3.3	3.3
	Agree	32	52.5	52.5	55.7
	Neither	12	19.7	19.7	75.4
	Disagree	13	21.3	21.3	96.7
	Strongly disagree	2	3.3	3.3	100.0
	Total	61	100.0	100.0	

52.5% agree, 21.3% disagree while 19.7% neither agree nor disagree with the above statement indicating that the greater majority of respondents consider it important to be on a medical aid scheme.

Table 4.40. More people will choose to be on a medical aid scheme if they were given the choice.

**Q36**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	34	55.7	55.7	55.7
	Neither	14	23.0	23.0	78.7
	Disagree	12	19.7	19.7	98.4
	Strongly disagree	1	1.6	1.6	100.0
	Total	61	100.0	100.0	

55.7% agree, 23% neither agree nor disagree and 19.7% disagree with the above statement. This indicates that the majority of respondents consider medical aid scheme membership important.

Table 4.41 to 4.42. Perceptions of scheme profitability

Table 4.41. My medical aid scheme is financially stable.

**Q32**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	1	1.6	1.6	1.6
	Agree	40	65.6	65.6	67.2
	Neither	19	31.1	31.1	98.4
	Disagree	1	1.6	1.6	100.0
	Total	61	100.0	100.0	

65.6% of respondents agree while 31.1% neither agree nor disagree with this statement.

Table 4.42. Medical aid schemes do not make a huge profit every year.

**Q35**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	1	1.6	1.6	1.6
	Neither	35	57.4	57.4	59.0
	Disagree	24	39.3	39.3	98.4
	Strongly disagree	1	1.6	1.6	100.0
	Total	61	100.0	100.0	

39.3% of respondents disagree while 57.4% neither agree nor disagree with this statement. Although medical aid schemes are non-profit organisations, a substantial percentage of respondents have the perception that they make a huge profit annually.

Table 4.43. Perceptions of claim payments

Table 4.43. Medical aid societies pay claims timeously.

**Q41**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	1	1.6	1.6	1.6
	Neither	11	18.0	18.0	19.7
	Disagree	49	80.3	80.3	100.0
	Total	61	100.0	100.0	

80.3% of respondents disagreed while 18% neither agreed nor disagreed with this statement. Therefore the majority of respondents are of the perception that medical aid societies do not pay claims timeously.

Table 4.44. Perceptions of medical aid brokers

Table 4.44. Medical aid brokers are familiar with their medical aid plans.

**Q42**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither	33	54.1	54.1	54.1
	Disagree	12	19.7	19.7	73.8
	Strongly disagree	16	26.2	26.2	100.0
	Total	61	100.0	100.0	

26.2% of respondents strongly disagree, 19.7% disagree and 54.1% neither disagree nor agree with the above statement.

In this study, the researcher wants to determine whether there is a significant difference amongst the different medical aid groups on the perceptions of subjects regarding information received and required (Q27, Q33, Q37), benefits received (Q28, Q30, Q43), contributions (Q29, Q40), membership (Q31, Q36), profitability (Q32, Q35), claim payment (Q41) and medical aid brokers (42).

ANOVA is used where you have more than two groups and the researcher wants to determine whether the groups differ on the variable of interest.

Table 4.45. One way ANOVA Medical Scheme

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Q27,33,37 together	Between Groups	.949	7	.136	.784	.603
	Within Groups	9.160	53	.173		
	Total	10.109	60			
Q28,30,43 together	Between Groups	2.740	7	.391	1.752	.117
	Within Groups	11.843	53	.223		
	Total	14.583	60			
Q31, 36 together	Between Groups	9.487	7	1.355	2.022	.069
	Within Groups	35.529	53	.670		
	Total	45.016	60			
Q32, 35 together	Between Groups	2.350	7	.336	2.341	.037
	Within Groups	7.601	53	.143		
	Total	9.951	60			
Q41	Between Groups	2.363	7	.338	1.813	.104
	Within Groups	9.867	53	.186		
	Total	12.230	60			
Q42	Between Groups	21.346	7	3.049	7.052	.000
	Within Groups	22.917	53	.432		
	Total	44.262	60			
Q29,40 together	Between Groups	2.281	7	.326	1.111	.370
	Within Groups	15.547	53	.293		
	Total	17.828	60			
Q29,40 reversed together	Between Groups	.536	7	.077	1.046	.411
	Within Groups	3.882	53	.073		
	Total	4.418	60			

There is no significant difference between the respondents of the various medical aid schemes on the perception of information received and required from the medical aid scheme, benefits received, contributions paid, membership and payment of claims.

On the perceptions of profitability and medical aid brokers however there are significant differences in response between respondents of the different medical aid groups.

Table 4.46. Sector of employment ANOVA with the various perception/attitude variables.

ANOVA					
		Sum of Squares	df	Mean Square	F
Q27,33,37 together	Between Groups	.423	2	.211	1.266
	Within Groups	9.687	58	.167	
	Total	10.109	60		
Q28,30,43 together	Between Groups	1.250	2	.625	2.719
	Within Groups	13.333	58	.230	
	Total	14.583	60		
Q31, 36 together	Between Groups	4.160	2	2.080	2.952
	Within Groups	40.857	58	.704	
	Total	45.016	60		
Q32, 35 together	Between Groups	2.237	2	1.118	8.409
	Within Groups	7.714	58	.133	
	Total	9.951	60		
Q41	Between Groups	1.849	2	.924	5.165
	Within Groups	10.381	58	.179	
	Total	12.230	60		
Q42	Between Groups	10.024	2	5.012	8.490
	Within Groups	34.238	58	.590	
	Total	44.262	60		
Q29,40 together	Between Groups	.302	2	.151	.500
	Within Groups	17.526	58	.302	
	Total	17.828	60		
Q29,40 reversed together	Between Groups	.049	2	.025	.327
	Within Groups	4.369	58	.075	
	Total	4.418	60		

We conclude that there are significant differences between the employment sectors on their perception variables for profitability of medical aid scheme, payment of

claims and medical aid brokers. For all the other perception variables, there is no significant difference between the employment sector groups.

#### 4.3. Conclusion

In this chapter, some of the more pertinent results were analysed and presented.

Reliability and Validity Tests were performed and analysed. The following chapter will attempt to discuss some of the more important findings of the study.

## CHAPTER 5

### 5.1. DISCUSSION

As with any billion rand industry, a tremendous amount of research, development and marketing is done year in and year out by medical aid schemes. Various new products and medical aid options are launched annually by the different schemes to increase their market share in this turbulent industry. The researcher has however found very little research or follow ups performed by these schemes or their administrators into customer satisfaction of the product.

The majority of respondents (69%) are unaware of who the administrator of their medical scheme is. Most administrators however distribute quarterly reports and customer information brochures to all members. One has to therefore consider the contents of these newsletters and the ability of members to read and analyse the content of the newsletter.

The literacy level of the test sample was relatively high with 47% having a tertiary education and 43% a secondary education. Newsletters and information to medical scheme members do not take into account the cultural, ethnic and social background of their members.

In the last two years, there have been major legislative changes within the healthcare industry. These changes in legislation however does not seem to filter to the very people that make up the healthcare industry. Our media carries several articles,

debates and mini surveys. The choice of media chosen to publish these articles however does not take the Black medical aid member into account.

Several knowledge related questions were dependent on the sector of employment. Respondents employed in the private sector were more knowledgeable about their medical aid scheme than those in the public sector. This could be as a result of each employer offering his or her employees no choice of medical aid scheme.

The majority of private sector companies belong to closed schemes. One of the advantages of such a system is that the human resource management team is well educated about the scheme and he could pass on this knowledge to the general employees quite easily.

Member queries and changes are handled via the resource manager to the medical schemes. Changes within the medical scheme and the industry as a whole are discussed at company meetings and filtered down to the employees.

Most public sector employees however do not have this avenue. The open choice of medical aid scheme makes it extremely difficult for human resource managers and their staff to keep track of changes within each medical aid scheme. Members are also free to change medical aid schemes within any given time. Individual members normally take up queries directly with the scheme administrators. Public sector employees generally have to keep track of changes within their medical scheme and the medical aid industry by themselves.

Medical scheme brokers play a significant role within the medical aid industry. This is more so within the public sector than the private sector. Brokers correspond with private sector employees via the respective company's human resource management team. After discussion with the employees or presentations made by brokers to the employees, management makes a choice for the entire company.

Most public sector employees however deal with medical aid brokers on an individual basis. Unscrupulous brokers can very easily influence individuals to join a scheme based on the level of commission earned rather than the best choice for that individual's needs.

This could probably be the reason why the majority of respondents believe that brokers are unfamiliar with the medical schemes they market.

The new regulations of the Medical Schemes Act as well as the proposals by the Financial Advisers' Bill will ensure that brokers have minimum qualifications and experience. The regulations also imposes a maximum 3% commission for health policies and a code of conduct and compulsory accreditation for all brokers. These changes will go a long way in preventing unscrupulous brokers unnecessarily forcing members into changing their medical aid scheme for their own financial gain.

Medical aid premiums have increased by 15 to 20 percent annually over the past four years, while the average salary increase over the same period has been between 6 and 9 percent. The majority of respondents agree that their medical aid premiums are far

too expensive and also those increases in premiums are unjustified as benefits are reduced.

Market penetration by medical aid schemes reflects the historic imbalances of apartheid. While the white market is 70 percent covered, the black, coloured and Asian markets all have less than 30 percent penetration by medical aids. Total market penetration of the entire population is around 16 percent, mainly because a large proportion of the population cannot afford conventional medical aid cover.

Government's plan to place all public servants on a single medical aid scheme by 2004 may go a long way into balancing the injustices of the past. Government hopes to draw more public servants into joining the medical aid scheme as opposed to the 450 000 of the 890 000 plus present members.

The enormous purchasing power that such a system will create for government will surely put it in a position to negotiate lower premiums with better packages for its employees. Administration nightmares will be the thing of the past, as government will have to deal with only one scheme instead of as present 40 odd schemes.

Members will benefit, as their knowledge of their medical scheme will surely improve considering that all fellow workers will be of the same medical aid scheme.

The majority of respondents (75%) are unaware of charges made by service providers. This combined with fact that 54% of respondents not understanding the contents of their monthly statements leaves themselves open to abuse by service providers and medical scheme administrators. At least 10 percent of your monthly contribution to

medical aid schemes goes towards the payment of fraudulent claims, say Barry Swartzberg, the managing director of Discovery Health.

## 5.2. Conclusion

The results of the study highlight certain areas within the medical aid industry that requires serious restructuring especially for Black medical aid patients. Effective policies and guidelines need to be set up so as to effectively manage and satisfy the need of the Black medical aid patient. This research is therefore invaluable to all medical aid schemes, the administrators, service providers and the healthcare industry.

## CHAPTER 6

### RECOMMENDATIONS AND CONCLUSION

#### 6.1. Introduction

The findings of this research give a clearer understanding of the medical aid industry and Black members. Extensive work needs to be done by all partners of the industry to make it a harmonious one. Sincere co-operation by all partners is imperative for the continued growth and success of this industry.

#### 6.2. Recommendations

##### 6.2.1 Recommendations based on research design

- ♦ In the case of future research, and increased sample size would be more appropriate. It would also be more useful to provide the expected respondents with a better understanding of the nature and purpose of the research in order to encourage more participation. If the benefits of participation in the study are reinforced the response rate will improve.
  
- ♦ The study was restricted to black medical aid patients only. It would be more useful to extent the research to all race groups within the medical aid industry to get a more diverse perspective.

- ◆ The results indicate an inequality in the distribution of respondents from the private and public sector. The representation of private to public sector was 27.9% and 62.3%, respectively.
- ◆ The level of education amongst the sample was fairly high with 47.5% having a tertiary education and 42.6% having a secondary education. 9.8% of respondents had a primary education. This inequality in the level of education must be considered for future research.
- ◆ The test sample was only based on patients attending the researcher's pharmacy over a one-week period. The study could be extended to include patients from other pharmacies in other areas throughout South Africa.

#### 6.2.2. Recommendations based on the results of the study

- ◆ Medical aid schemes must design and market products based on the needs of black members specifically rather than a general product for the entire population.
- ◆ The transfer of information from medical scheme administrators in its present form does not seem to be successful. Brokers need to be given sole mandates to market and relay information directly to members via meetings at their place of work if possible or at public meetings. To succeed, brokers should work within a confined area only.

- ◆ Members should become more proactive regarding the general operation of their medical schemes. They should make it their duty to become more knowledgeable of their medical schemes.
  
- ◆ Legislative changes within the medical aid industry affects service providers, medical schemes, administrators and more importantly the members. Presently however the member is hardly made aware of the changes taking place in the industry. Government therefore needs to play its part in informing the public of legislative changes via all available media and not just a handful.
  
- ◆ Schemes should be more tightly managed with risk and cost management programs firmly in place. This reduces the extent of fraud as experienced by one administrator.
  
- ◆ Government's plan to offer only one medical aid scheme to its entire workforce should be encouraged as this will make medical aid contributions more affordable and also extend affordable membership to a higher percentage of its workforce.
  
- ◆ Members should be given incentives by their medical aid schemes to lead healthy lifestyles and join health care programs.
  
- ◆ Members should be encouraged to take more responsibility for their day-to-day medical costs. To achieve this, medical aid schemes should develop loyalty programs and link the members saving accounts to healthcare insurance schemes.

### 6.3. Conclusion

The medical aid industry, being a very important one to all concerned, is operating in a very turbulent environment. Changes are being made and implemented across the industry at an alarming rate. Role-players within the industry are finding it extremely difficult to keep pace and more importantly, in control of these changes. The medical aid member, the core to this industry, feels totally neglected and unaware of all the changes occurring around him.

As medical aid members pay more out of their own pockets, they are expected to become more demanding. They are likely to start demanding cheaper medication and questioning whether a procedure is absolutely necessary. This is expected to force providers to accept lower profit margins, while servicing more patients. They could begin cooperating with funders to develop products and mechanisms that help control medical inflation.

## Appendix

### 1. Questionnaire

# UNIVERSITY OF NATAL GRADUATE SCHOOL OF BUSINESS SURVEY 2002

Dear Participant

I am a student at the above university. I am currently engaged in research for my dissertation for my MBA degree. This survey forms part of a research effort intended to study the knowledge, use off and attitudes of Black patients towards their medical aid schemes. Through your participation you will help create a better understanding of the problems encountered within the medical aid industry, and thereby assist medical aid schemes and their administrators in alleviating some of these problems.

You are not obliged to participate in this study. However, since every contribution would help, I would appreciate it if you completed the questionnaire.

Do not write your name or any identifying information anywhere on the questionnaire, as it is designed to be anonymous.

Kindly allocate about 20 minutes to complete this questionnaire. If you have any doubts about the questions, please feel free to consult with me and remember that your first response is usually the most accurate.

Thank you for your cooperation.

1. Age :

Less than 20	20 - 30	31 – 45	46 +

2. Gender :

Male	
Female	

3. Marital Status :

Single	
Married	

4. Level of Education

Tertiary	Secondary	Primary	No Schooling

5. In which sector are you employed ?

Private Sector	Public Sector	Pensioner

6. Number of dependants on your medical aid scheme?

0	1	2	3	4	5	5 +

7. Which medical aid scheme do you belong to ?

Bonitas	
Med Shield	
Polmed	
Medcor	
Nmp	
Fedhealth	
Discovery	
Other	

8. Did you choose your own Medical Aid Scheme ?

Yes	
No	

9. Do you know the administrator of your Medical Aid scheme?

Yes	
No	

10. Do you ask for discounts from your service providers ?

Yes	
No	

11. Do you understand what a chronic illness condition is ?

Yes	
No	

12. Do you understand the difference between a chronic illness and an acute illness condition ?

Yes	
No	

13. Are you aware of the different benefit options that your Medical Aid scheme offers ? (eg. Comprehensive plan, Economy plan etc.)

Yes	
No	

14a. Did you change your Medical Aid scheme within the last 5 years ?

Yes	
No	
Not Sure	

14b. If yes, how many Medical Aid schemes have you belonged to in the last 5 years ?

--

15. Do you know the total contributions of your Medical Aid scheme? (employer and employees contribution)

Yes	
No	
Not Sure	

16. Are you aware of all the benefits offered by your Medical Aid scheme?

Yes	
No	
Not Sure	

17. Do you understand the rules and regulations pertaining to your benefits ?

Yes	
No	
Not Sure	

18. Do you need pre-authorisation for specialised procedures and hospitalisation ?

Yes	
No	
Not Sure	

19. Does your Medical Aid scheme pay for alternate medicine ?  
(eg. Homeopathic medication)

Yes	
No	
Not Sure	

20. Do you know what generic medication is ?

Yes	
No	
Not Sure	

21. Do you understand the contents of your monthly statements ?

Yes	
No	
Not Sure	

22. Are you at all times aware of the charges made by service providers ?

Yes	
No	
Not Sure	

23. Does your Medical Aid scheme pay according to the scale of benefits to service providers ?

Yes	
No	
Not Sure	

24. Does your Medical Aid scheme pay for medical and surgical appliances ?  
(eg. Glucometer, nebulisers, wheelchairs etc.)

Yes	
No	
Not Sure	

25. Are your annual benefits restricted for consultations,medications,dentistry etc?

Yes	
No	
Not Sure	

26. Are Medical Aid schemes profit organisations ?

Yes	
No	
Not Sure	

27. I need more information about my Medical Aid scheme.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

28. My Medical Aid scheme offers me sufficient acute medication benefits.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

29. My Medical Aid scheme is too expensive.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

30. The benefits offered by my Medical Aid scheme are sufficient.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

31. If my employer paid my medical aid scheme subsidy directly to my salary, I would still choose to join a medical aid scheme.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

32. My Medical Aid scheme is financially stable.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

33. I receive sufficient information about the changes within my Medical Aid scheme.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

34. My Medical Aid scheme must have a savings option.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

35. Medical Aid schemes do not make a huge profit every year.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

36. More people will choose to be on Medical Aid scheme if they were given the choice.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

37. I am consulted enough about changes within the Medical Aid industry.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

38. Government must be fully responsible for the medical health of its people.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

39. All individuals must belong to a Medical Aid scheme.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

40. Increases in Medical Aid scheme contributions are not justified.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

41. Medical Aid societies pay claims timeously.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

42. Medical Aid brokers are familiar with their Medical Aid plans.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

43. If Medical Aid schemes subsidise their members for programs that keep them healthy eg. Gym membership, regular visits to a dietitian etc, members will use their medical aid less often.

Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

YOU HAVE COME TO THE END OF THE QUESTIONNAIRE

THANK YOU FOR YOUR TIME AND PARTICIPATION

IN THIS STUDY

## 2. Rotated Factor Matrix

**Rotated Factor Matrix<sup>a</sup>**

	Factor			
	1	2	3	4
Q36	.884	.009	.239	.227
Q31	.826	.069	.299	.320
Q38	.791	.407	.043	-.105
Q32	.445	.211	-.282	-.163
Q43	.425	.132	.254	.233
Q35	.365	.307	.223	.216
Q37	.117	.872	.242	.224
Q33	.102	.776	.404	.096
Q27	.119	.674	-.088	.185
Q41	.392	.642	-.034	.064
Q29	.316	.263	.876	.249
Q40	.211	.222	.656	.108
Q39	.060	-.345	.432	.143
Q28	.075	.401	.308	.859
Q42	.281	.180	-.023	.572
Q30	.198	-.125	.172	.542

Extraction Method: Generalized Least Squares.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

**Total Variance Explained**

Factor	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.064	19.151	19.151
2	3.001	18.757	37.909
3	2.083	13.020	50.929
4	1.843	11.518	62.447

Extraction Method: Generalized Least Squares.

## 3. KMO and Bartlett's Test

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.672
Bartlett's Test of Sphericity	265.050

4. Crosstab Q1 and Q9

**Crosstab**

		Count	Q9		Total
			Yes	No	
Age	Less than 20	2	1	3	
	% of Total	3.3%	1.6%	4.9%	
	20-30	3	10	13	
	% of Total	4.9%	16.4%	21.3%	
	31-45	10	17	27	
	% of Total	16.4%	27.9%	44.3%	
	46+	4	14	18	
	% of Total	6.6%	23.0%	29.5%	
	Total	19	42	61	
	% of Total	31.1%	68.9%	100.0%	

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.265 <sup>a</sup>	3	.353
Likelihood Ratio	3.146	3	.370
Linear-by-Linear Association	.771	1	.380
N of Valid Cases	61		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .93.

5. 5. Crosstab Q2 and Q9

**Crosstab**

		Count	Q15			Total
			Yes	No	Not sure	
Gender	Male	14	13	7	34	
	% of Total	23.0%	21.3%	11.5%	55.7%	
	Female	6	11	10	27	
	% of Total	9.8%	18.0%	16.4%	44.3%	
	Total	20	24	17	61	
	% of Total	32.8%	39.3%	27.9%	100.0%	

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.134 <sup>a</sup>	2	.209
Likelihood Ratio	3.185	2	.203
Linear-by-Linear Association	3.071	1	.080
N of Valid Cases	61		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.52.

### 6. 6. Crosstab Q3 and Q9

#### Crosstab

			Q9		Total
			Yes	No	
Marital Status	Single	Count	8	14	22
		% of Total	13.1%	23.0%	36.1%
	Married	Count	11	28	39
		% of Total	18.0%	45.9%	63.9%
Total		Count	19	42	61
		% of Total	31.1%	68.9%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.437 <sup>b</sup>	1	.509		
Continuity Correction <sup>a</sup>	.139	1	.709		
Likelihood Ratio	.432	1	.511		
Fisher's Exact Test				.571	.352
Linear-by-Linear Association	.429	1	.512		
N of Valid Cases	61				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.85.

## 7. Crosstab Q4 and Q9

**Crosstab**

		Q9		Total
		Yes	No	
Level of Education	Tertiary	Count	12	29
		% of Total	19.7%	47.5%
	Secondary	Count	7	26
		% of Total	11.5%	42.6%
	Primary	Count	6	6
		% of Total	9.8%	9.8%
Total		Count	19	61
		% of Total	31.1%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.346 <sup>a</sup>	2	.114
Likelihood Ratio	6.048	2	.049
Linear-by-Linear Association	4.074	1	.044
N of Valid Cases	61		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.87.

## 8. Cross Q1 and Q15

**Crosstab**

		Q15			Total
		Yes	No	Not sure	
Age	Less than 20	Count	2	1	3
		% of Total	3.3%	1.6%	4.9%
	20-30	Count	3	6	13
		% of Total	4.9%	9.8%	21.3%
	31-45	Count	8	9	27
		% of Total	13.1%	14.8%	44.3%
	46+	Count	7	9	18
		% of Total	11.5%	14.8%	29.5%
Total		Count	20	24	61
		% of Total	32.8%	39.3%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.511 <sup>a</sup>	6	.368
Likelihood Ratio	7.906	6	.245
Linear-by-Linear Association	.621	1	.431
N of Valid Cases	61		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is .84.

### 9. Crosstab Q2 and Q15

#### Crosstab

			Q15			Total	
			Yes	No	Not sure		
Gender	Male	Count	14	13	7	34	
		% of Total	23.0%	21.3%	11.5%	55.7%	
	Female	Count	6	11	10	27	
		% of Total	9.8%	18.0%	16.4%	44.3%	
Total		Count	20	24	17	61	
		% of Total	32.8%	39.3%	27.9%	100.0%	

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.134 <sup>a</sup>	2	.209
Likelihood Ratio	3.185	2	.203
Linear-by-Linear Association	3.071	1	.080
N of Valid Cases	61		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.52.

## 10. Crosstab Q3 and Q15

**Crosstab**

			Q15			Total
			Yes	No	Not sure	
Marital Status	Single	Count	7	8	7	22
		% of Total	11.5%	13.1%	11.5%	36.1%
	Married	Count	13	16	10	39
		% of Total	21.3%	26.2%	16.4%	63.9%
Total		Count	20	24	17	61
		% of Total	32.8%	39.3%	27.9%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.280 <sup>a</sup>	2	.869
Likelihood Ratio	.278	2	.870
Linear-by-Linear Association	.136	1	.713
N of Valid Cases	61		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.13.

## 11. Crosstab Q4 and Q15

**Crosstab**

			Q15			Total
			Yes	No	Not sure	
Level of Education	Tertiary	Count	11	9	9	29
		% of Total	18.0%	14.8%	14.8%	47.5%
	Secondary	Count	9	11	6	26
		% of Total	14.8%	18.0%	9.8%	42.6%
	Primary	Count		4	2	6
		% of Total		6.6%	3.3%	9.8%
Total		Count	20	24	17	61
		% of Total	32.8%	39.3%	27.9%	100.0%

## 10. Crosstab Q3 and Q15

**Crosstab**

			Q15			Total
			Yes	No	Not sure	
Marital Status	Single	Count	7	8	7	22
		% of Total	11.5%	13.1%	11.5%	36.1%
	Married	Count	13	16	10	39
		% of Total	21.3%	26.2%	16.4%	63.9%
Total		Count	20	24	17	61
		% of Total	32.8%	39.3%	27.9%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.280 <sup>a</sup>	2	.869
Likelihood Ratio	.278	2	.870
Linear-by-Linear Association	.136	1	.713
N of Valid Cases	61		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.13.

## 11. Crosstab Q4 and Q15

**Crosstab**

			Q15			Total
			Yes	No	Not sure	
Level of Education	Tertiary	Count	11	9	9	29
		% of Total	18.0%	14.8%	14.8%	47.5%
	Secondary	Count	9	11	6	26
		% of Total	14.8%	18.0%	9.8%	42.6%
	Primary	Count		4	2	6
		% of Total		6.6%	3.3%	9.8%
Total			20	24	17	61
			32.8%	39.3%	27.9%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.316 <sup>a</sup>	4	.365
Likelihood Ratio	6.118	4	.191
Linear-by-Linear Association	.509	1	.476
N of Valid Cases	61		

a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.67.

### 12. Crosstab Q1 and Q17

#### Crosstab

Age	Less than 20	Q17			Total
		Yes	No	Not sure	
Less than 20	Count		1	2	3
	% of Total		1.6%	3.3%	4.9%
20-30	Count		2	11	13
	% of Total		3.3%	18.0%	21.3%
31-45	Count	1	5	21	27
	% of Total	1.6%	8.2%	34.4%	44.3%
46+	Count	2	4	12	18
	% of Total	3.3%	6.6%	19.7%	29.5%
Total		3	12	46	61
		4.9%	19.7%	75.4%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.135 <sup>a</sup>	6	.792
Likelihood Ratio	3.517	6	.742
Linear-by-Linear Association	1.378	1	.240
N of Valid Cases	61		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .15.

### 13. Crosstab Q2 and Q17

**Crosstab**

			Q17			Total
			Yes	No	Not sure	
Gender	Male	Count	2	6	26	34
		% of Total	3.3%	9.8%	42.6%	55.7%
	Female	Count	1	6	20	27
		% of Total	1.6%	9.8%	32.8%	44.3%
Total		Count	3	12	46	61
		% of Total	4.9%	19.7%	75.4%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.317 <sup>a</sup>	2	.853
Likelihood Ratio	.320	2	.852
Linear-by-Linear Association	.000	1	.988
N of Valid Cases	61		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.33.

### 14.Crosstab Q3 and Q17

**Crosstab**

			Q17			Total
			Yes	No	Not sure	
Marital Status	Single	Count		6	16	22
		% of Total		9.8%	26.2%	36.1%
	Married	Count	3	6	30	39
		% of Total	4.9%	9.8%	49.2%	63.9%
Total		Count	3	12	46	61
		% of Total	4.9%	19.7%	75.4%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.736 <sup>a</sup>	2	.255
Likelihood Ratio	3.687	2	.158
Linear-by-Linear Association	.055	1	.814
N of Valid Cases	61		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.08.

15 Crosstab Q4 and 17

### Crosstab

Level of Education	Tertiary	Q17			Total
		Yes	No	Not sure	
Education	Count	2	3	24	29
	% of Total	3.3%	4.9%	39.3%	47.5%
Secondary	Count	1	6	19	26
	% of Total	1.6%	9.8%	31.1%	42.6%
Primary	Count		3	3	6
	% of Total		4.9%	4.9%	9.8%
Total		3	12	46	61
		4.9%	19.7%	75.4%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.568 <sup>a</sup>	4	.234
Likelihood Ratio	5.321	4	.256
Linear-by-Linear Association	.947	1	.330
N of Valid Cases	61		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .30.

## 16. Crosstab Q5 and Q17

**Crosstab**

		Q17			Total
		Yes	No	Not sure	
Sector of employment	Private	Count	1	2	17
		% of Total	1.6%	3.3%	23.0%
	Public	Count	1	9	38
		% of Total	1.6%	14.8%	45.9%
Pensioner	Pensioner	Count	1	1	6
		% of Total	1.6%	1.6%	6.6%
Total		Count	3	12	46
		% of Total	4.9%	19.7%	75.4%
					100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.183 <sup>a</sup>	4	.528
Likelihood Ratio	2.685	4	.612
Linear-by-Linear Association	.771	1	.380
N of Valid Cases	61		

a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .30.

## 17. Crosstab Q1 and Q21

**Crosstab**

		Q21			Total
		Yes	No	Not sure	
Age	Less than 20	Count		2	3
		% of Total		3.3%	1.6%
20-30	Count	3	8	2	13
	% of Total	4.9%	13.1%	3.3%	21.3%
31-45	Count	9	15	3	27
	% of Total	14.8%	24.6%	4.9%	44.3%
46+	Count	5	8	5	18
	% of Total	8.2%	13.1%	8.2%	29.5%
Total		Count	17	33	61
		% of Total	27.9%	54.1%	18.0%
					100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.879 <sup>a</sup>	6	.693
Likelihood Ratio	4.616	6	.594
Linear-by-Linear Association	.061	1	.804
N of Valid Cases	61		

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .54.

### 18. Crosstab Q2 and Q21

#### Crosstab

Gender	Male	Q21			Total	
		Yes	No	Not sure		
Gender	Male	Count	12	17	34	
		% of Total	19.7%	27.9%	55.7%	
	Female	Count	5	16	27	
		% of Total	8.2%	26.2%	44.3%	
Total		Count	17	33	61	
		% of Total	27.9%	54.1%	100.0%	

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.230 <sup>a</sup>	2	.328
Likelihood Ratio	2.286	2	.319
Linear-by-Linear Association	1.944	1	.163
N of Valid Cases	61		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.87.

19. Crosstab Q3 and Q21

**Crosstab**

			Q21			Total
			Yes	No	Not sure	
Marital Status	Single	Count	5	13	4	22
		% of Total	8.2%	21.3%	6.6%	36.1%
	Married	Count	12	20	7	39
		% of Total	19.7%	32.8%	11.5%	63.9%
Total		Count	17	33	11	61
		% of Total	27.9%	54.1%	18.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.485 <sup>a</sup>	2	.785
Likelihood Ratio	.494	2	.781
Linear-by-Linear Association	.211	1	.646
N of Valid Cases	61		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.97.

20. Crosstab Q1 and Q20

**Crosstab**

			Q20			Total
			Yes	No	Not sure	
Age	Less than 20	Count		3		3
		% of Total		4.9%		4.9%
	20-30	Count	4	7	2	13
		% of Total	6.6%	11.5%	3.3%	21.3%
	31-45	Count	5	21	1	27
		% of Total	8.2%	34.4%	1.6%	44.3%
	46+	Count	5	11	2	18
		% of Total	8.2%	18.0%	3.3%	29.5%
Total		Count	14	42	5	61
		% of Total	23.0%	68.9%	8.2%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.682 <sup>a</sup>	6	.585
Likelihood Ratio	5.548	6	.476
Linear-by-Linear Association	.104	1	.747
N of Valid Cases	61		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .25.

### 21. Crosstab Q2 and Q20

#### Crosstab

Gender	Male	Q20			Total
		Yes	No	Not sure	
Male	Count	8	23	3	34
	% of Total	13.1%	37.7%	4.9%	55.7%
Female	Count	6	19	2	27
	% of Total	9.8%	31.1%	3.3%	44.3%
Total	Count	14	42	5	61
	% of Total	23.0%	68.9%	8.2%	100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.064 <sup>a</sup>	2	.968
Likelihood Ratio	.065	2	.968
Linear-by-Linear Association	.000	1	.994
N of Valid Cases	61		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.21.

## 22. Crosstab Q3 and Q20

**Crosstab**

		Q20			Total
		Yes	No	Not sure	
Marital Status	Single	Count	5	14	3
		% of Total	8.2%	23.0%	4.9%
	Married	Count	9	28	2
		% of Total	14.8%	45.9%	3.3%
Total		Count	14	42	5
		% of Total	23.0%	68.9%	8.2%
					100.0%

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.379 <sup>a</sup>	2	.502
Likelihood Ratio	1.316	2	.518
Linear-by-Linear Association	.375	1	.540
N of Valid Cases	61		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.80.

## 23. Crosstab Q5 and Q20

**Crosstab**

		Q20			Total
		Yes	No	Not sure	
Sector of employment	Private	Count	7	9	1
		% of Total	11.5%	14.8%	1.6%
	Public	Count	6	29	3
		% of Total	9.8%	47.5%	4.9%
	Pensioner	Count	1	4	1
		% of Total	1.6%	6.6%	1.6%
Total		Count	14	42	5
		% of Total	23.0%	68.9%	8.2%
					100.0%

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.990 <sup>a</sup>	4	.288
Likelihood Ratio	4.567	4	.335
Linear-by-Linear Association	3.095	1	.079
N of Valid Cases	61		

<sup>a</sup>. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .49.

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