

PATIENT EXPERIENCE

A PROSPECTIVE & SUMMATIVE EVALUATION: ON THE PERSPECTIVES OF MEDICAL SCHEME BENEFICIARIES WITH DIABETES



Research & Monitoring

Working Paper Series: Research Brief No. 2 of 2019

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EXECUTIVE SUMMARY

The Research Policy & Monitoring Unit has piloted a patient experience survey tool for medical scheme beneficiaries with diabetes 1 and 2. The survey responses were adequate to calculate reliable patient experience scores. The paragraphs that follow provide recommendations and proposed future research activities.

Cultural shift in health system responsiveness

Patient experience surveys are a critical input to shaping health financing and delivery. They provide pertinent information for improving health outcomes and the value experience. These surveys should be a core function of what we do at the CMS. Patient experience information can help the country to reach the intended target populations.

On the survey tool

The survey tool should be translated in Afrikaans.

Data to be collected on demographic profiles

Schemes should provide details on the ethnic/race profiles of beneficiaries who suffer from chronic conditions. This will enable future analysis to calculate unbiased patient experience scores, particularly for conditions that have some ethnic groups relatively more predisposed than others.

Recommendation: Distinction between patient experience and patient satisfaction

Patient satisfaction and experience are two distinctly different measurements; one is about what happened, and the other is about expectations. They both should be included in future survey tools.

Recommendation: PROMS vs PREMS

Patient Reported Outcome Measure surveys (PROMS) collect data on the clinical effectiveness of health quality processes and outcomes. Patient Reported Experience Measures (PREMS) collect data on the interpersonal relationship during the health seeking experience. Both are critical, and PROMS should be included in PREMS survey tools.

Recommendations: Patient experience dimensions

The patient experience dimensions that should be used in future survey tools are:

- i) Access and waiting times
- ii) Respect and inclusive decisions
- iii) Management of diabetes
- iv) Emotional and psychological support

Future research & Activities

- i) Schedule meeting with Clinical and Accreditation Units
 - a) Determine priority chronic conditions
 - b) Clinical indicators for future survey tool
 - Clinical interventions and adherence
 - Clinical markers
 - Meta-analysis – CMS and/or HOA results
- ii) Link survey participants to Beneficiary Registry
- iii) Link survey entities to Supplier Registry
- iv) Compare experience weighted scores of service providers
- v) Disseminate findings to schemes
- vi) Make information available to supply-side regulators for P.P.P. network arrangements
- vii) Collaborate with Independent Service Provider or HOA
 - a) Tender & award provider to roll-out full survey of Disease Management Programmes
 - b) Create observatory of results in line HMI preliminary recommendations
- viii) Engage very closely with stakeholders every step of the way
- ix) Invite the Health Market Inquiry to patient experience workshops
- x) Present patient experience results at industry indabas and at Principal Officer training.

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1. INTRODUCTION

1.1 Problem Statement

The Council for Medical (CMS) conducts an analysis on the quality of clinical interventions. The value of managed care programs from the patient's perspective is unknown. Nor do we know whether medical schemes are factoring in the satisfaction of patient preferences into their pay-for-performance initiatives. The contemporary knowledge is that if patients have positive healthcare experiences with healthcare providers, healthcare outcomes will improve, and patient experience information will allow medical scheme beneficiaries and schemes to purchase services more effectively.

1.2 Background and Policy Context

The Health Market Inquiries (2018) found that there is a lack of transparency when it comes to the quality of managed care interventions. Not enough is known about the experience of medical scheme beneficiaries when dealing with managed care services.

The Council for medical Schemes (CMS) advocate the rights of beneficiaries, by publishing indicators on the comparative performance of managed care interventions, and provider network arrangements. These reports must be provided twice a year (Health Market Inquiry, 2018).

This document serves as the baseline for an effective method for monitoring the performance of managed care organisations. The industry will need to be engaged in order to allow for a participatory governance process. Both medical schemes and managed care organisations will need to be consulted – pursuant to establishing consensus on a monitoring methodology.

Figure 1 is a logic model of a needs assessment that the Policy Research & Monitoring unit conducted. This was done pursuant to designing a patient experience survey tool, for diabetes 1 and 2.

Besides the clinical quality process indicators that are collected and reported on in the Annual Report of the CMS, not much is known about the patient experience of beneficiaries registered on disease management programmes for chronic conditions. The CMS is obliged by section 7 of the Medical Schemes Act to inform the Minister of Health on quality in medical schemes.

To amplify the needs: i) patients need to be empowered to take ownership of their healing process; ii) medical schemes need ensure that disease management programmes offer quality to beneficiaries; and iii) public interest and

the Competition Commission require competitiveness from a quality and pricing perspective, which need to be demonstrated to beneficiaries.

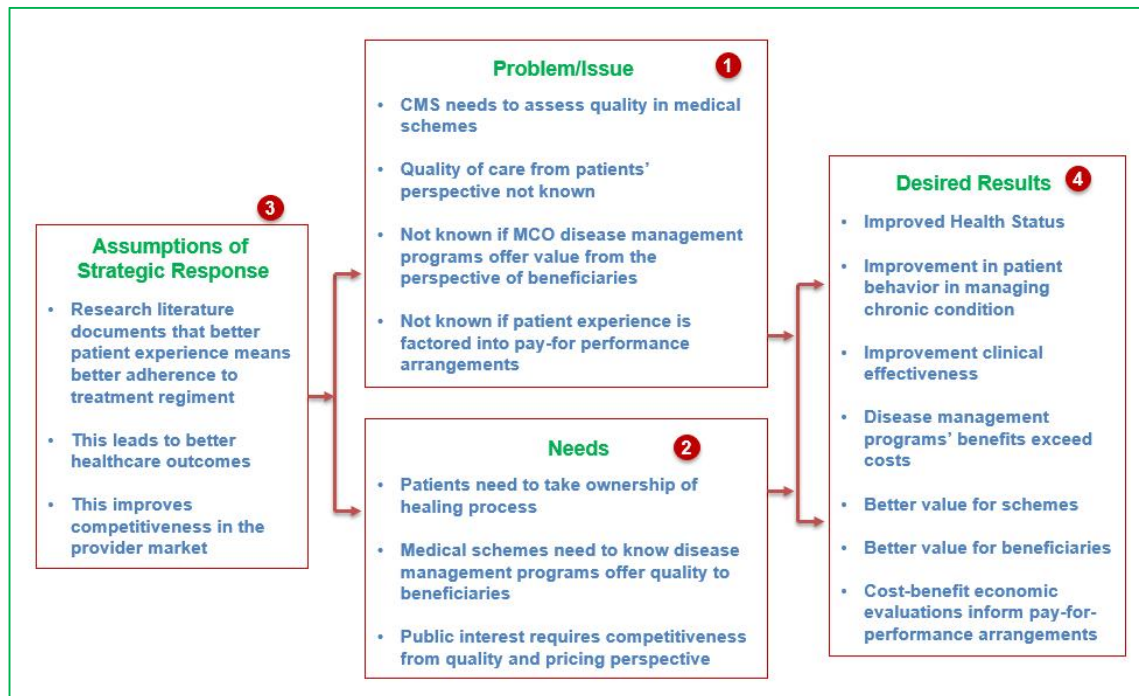


Figure 1: Logic Model -- Needs Assessment

1.3 Purpose

The purpose of this report is to measure patient experience. The process the report takes to achieve this has three facets.

The report develops a formative framework for analysing the patient-centred care component of disease management programs. The document frames and defines the concepts it seeks to measure; specifically, patient experience and patient satisfaction.

The research question, the measurable concepts, and survey tool are developed from engaging with a detailed literature on patient-centred care, and patient experience survey questionnaires. The literature search for the survey tool then focuses on outpatient and disease management programs of beneficiaries with diabetes.

The survey tool development process is tested with relevant professionals at CMS. The process culminates into a survey tool which is piloted on beneficiaries with diabetes 1 and 2. The survey tool is tested for reliability and internal validity. The results of this analysis, and lessons learned from comments made by non-participating beneficiaries, will be used in developing the survey questionnaire.

It provides a method to evaluate these two concepts, then compares these principles with patient treatment adherence behaviours. The empirical evidence emanating from the analysis, is intended to provide a baseline which needs further interrogation and analysis in collaborations with interested parties in the medical schemes industry.

1.4 Objectives

The objectives of the report are:

- To distinguish patient satisfaction from patient experience
- To develop a survey tool for measuring patient experience, patient experience, and patient adherence
- To conduct a survey on how patients' experience engaging with disease management programs
- To test the reliability and internal validity of the survey tool
- To make recommendations on the future role-out of disease management surveys
- To calculate overall patient experience scores
- To compare patient experience and patient satisfaction outcomes
- To make recommendations on how to use the findings of the patient experience survey

2 LITERATURE REVIEW

2.1 Reviewed Literature

Patient experience has emerged as the way to do things when healthcare providers interact with patients. The National Institute for Health & Care (NICE) refers to it as a “cultural shift” in the way that the National Health Services (NHS) does things (NICE, 2012a). Browne et al. (2010) say that a patient-centred approach to health system design and re-engineering is an effective policy tool. Gerteis et al. (1993) say, to measure patient-centeredness, is to fathom quality “in the eyes of the patient”.

It is important to monitor and act on patient experience surveys. Doyle et al. (2013) conducted a systemic review of patients’ experience survey studies, and consistently found that patient experience should be a key component of healthcare quality. Patients who had good interactions with their health providers had good clinical outcomes. This is also consistent with Donebedian’s (1988) framework for measuring healthcare quality. In fact, the Picker Institute has incorporated eight domains which explain patient experience (NICE, 2012a). Luxford and Sutton (2014) say that research is continuously showing that positive patient experience not only has a positive impact on clinical effectiveness, but also a positive relationship with patient safety outcomes.

The NHS has published a “framework for implementing patient experience” (NHS, 2012). The framework looks a lot like a patients’ charter. South Africa has developed its own patient charter (HPCSA, 2008). Both charters emphasise the importance of patient engagement, access to care, care coordination and continuation, informed choices, and patient empowerment.

Chang and Chang (2013) advocate; if consumers are charged with information about how fellow patients rate their experience with their care givers, consumers’ choices in the supply-side could help discipline the market. The Agency for Health Research and Quality (AHRQ) promote the idea that healthcare providers must demonstrate that they are able to provide quality care at efficient costs.

Price et al. (2014) find patient experience information to be perfect complements to pay-for-performance initiatives. They go further to identify patient experience information as a remedy to demand-side inefficiencies. Public communication of patient-experience empowers consumers to identify benefit options that provide the best value (Price, et al., 2014).

In the South African context; Grobler & Stuart (2007) have highlighted the importance incorporating demand-side factors to supply-side planning, during the process of re-engineering healthcare delivery systems. The authors

suggest that the alleviation of healthcare inequalities and improving healthcare access, requires a knowledge of consumer preferences on the demand side (Grobler & Stuart, 2007).

"Patients value the interpersonal aspects of their health care experiences", (Browne, et al., 2010). The National Institute for Health & Care Excellence (NICE) provides a comprehensive standard on what it deems to be patient-centred care (NICE, 2012b). The standards provide an evidence-based approach to actualising the NHS's 'cultural shift', which is envisaged in its "framework for implementing patient experience" (NHS, 2012). This was the study which led to the standards for patient experience and was based on a systematic review, which included methods for analysing patient experience surveys.

Price et al. (2014) provide credence to Browne et al. (2010), as they examine the role of patient experience in developing the concept of quality from the patient's perspective. Quality and its value to consumers is generally important in service-based economies. Service providers differentiate themselves on this basis (Pine & Gilmore, 1998).

Donabedian said that the patient-centred dimension to healthcare should be considered to ensure the validity of observations associated with clinical interventions (Donabedian, 1988). To this end, Clever et al. (2008) employed a micro-econometric evaluation technique to control for the potential systematic bias, that could impact the validity of observations and inferences about treatment effects.

Patients' experience has been identified as a factor that can have an impact on competitiveness and market structure (Chang & Chang, 2013). Not only is it important in private healthcare delivery markets, but the NHS is using it to improve healthcare services to British citizens, and using patient experience to get British citizens involved in getting the healthcare system to respond to their needs (Foot, et al., 2014), (de Silva, 2013).

Browne et al. (2010) say that an emerging theme from patient-experience surveys, is that patients expect: i) healthcare providers to be sensitive to their personal needs; ii) to be informed; and iii) to be given the opportunity to participate in decisions related to their clinical treatment.

That said; even though healthcare providers may feel it is important to know what patients' expectations want, some of them may forget to do (Luxford & Sutton, 2014). Coulter et. al (2009) and Foot et. al (2014) assert that it is important to conduct patient experience surveys, so that an important component of healthcare quality can be measured and monitored. The end goal is to improve the ability of the healthcare system to include the patient in developing responsive and effective healthcare systems (Coulter, et al., 2009), and (Foot, et al., 2014).

From what the authors are saying, this may be impediment to getting standardised information on healthcare quality from the patient perspective at a critical component of healthcare delivery systems – the primary healthcare delivery system. In terms of healthcare system design, Luxford and Sutton (2014) find that patient experience surveys may identify gaps in healthcare service coordination.

There have been healthcare economists who have research findings that may point to poor incorporation of consumer preferences in designing healthcare delivery systems. Koch (2017) applies regression discontinuity as an identification strategy for eliciting the impact of user fee abolition policy for the pregnant and women with babies in South African clinics. He finds no statistical significance, although others in other African countries do Brink and Koch (2015) had similar findings in a previous study using the difference-in-differences method. The significance of these findings is that South Africa has had a unique experience, in policy implementation, relative to other countries on the continent.

The experience in South Africa may result from: i) incomplete information sourced from administrative cost centres, or ii) poor communication, or iii) lack of knowledge on available health services and how to access it. This makes patient experience surveys extremely important for re-engineering the primary healthcare delivery system. Otherwise, the policy might not be effectively implemented if it does not reach the target population group effectively.

Patient satisfaction surveys are very common in hospital settings. Bowne et al. (2010) have noticed that patient experience surveys may be more difficult to implement at primary healthcare level, due to the administrative burden and the difficulty of coordinating and standardising results.

Fortunately, the AHRQA has developed standardised survey tools for collecting patient experience information (Browne, et al., 2010). The survey tools are collectively called Consumer Assessments of Healthcare Providers & Systems (CAHPS). The Center for Medicaid and Medicare Services (CMS) in the United States; commissioned a micro-econometric evaluation study on patient experience, using CAHPS survey tools (Dale, et al., 2016).

Patient experience surveys have been used to study the impact of socio-economic factors on differences in accessing healthcare services (Rodriguez, et al., 2010). Another by van Hasselt et al. (2015) looked at how patient centred approaches impacted healthcare outcomes of Medicare beneficiaries. The target group were practices that implemented patient-focused care methods (van Hasselt, et al., 2015).

NICE (2012a) was the study which led to the standards for patient experience. It was based on a systematic review which included methods for analysing patient experience surveys. According to NICE (2012a), the patient experience components were developed by the Picker Institute based on the seven dimensions which Gerteis et al. (1993) considered the epitome of the concept of “patient-centred care”.

The seven dimensions are:

- Respect for patients values, preferences and expressed needs
- Co-ordination and integration of care
- Information, communication, and education
- Physical comfort
- Emotional support and alleviation of fear and anxiety
- Involvement of family and friends
- Transition and continuity

An additional dimension was included by the Picker Institute (NICE, 2012a). The additional component is “access to care”.

LaVela and Gallan (2014) say that patient satisfaction is informed by whether perceived expectations that patients had were achieved or not. They assert that patient expectations, and thus experience, are informed by the preferences that patients have regarding their interactions with healthcare providers, and not the clinical interventions that occur (LaVela & Gallan, 2014). Therefore; patients are not reporting on clinical outcomes, but rather on preferences. Coulter et al. (2009) say this is also what distinguishes Patient Reported Experience Measure Survey (PREMS) from Patient Reported Outcome Measure Surveys (PROMS).

LaVela and Gallen (2014) suggest the redemption of patient experience surveys is that they don't just assess the overall healthcare experience (patient satisfaction). Patient experience measures cover numerous factors across eight different dimensions of the healthcare seeking experience. Therefore, health policy makers not only know whether patients in the health delivery systems are happy with the services they receive, but healthcare managers know exactly what works for patient preference in different healthcare delivery settings (LaVela and Gallen, 2014).

LaVela and Gallen (2014) raise a critique often made about healthcare satisfaction survey findings. These speak to issues of endogeneity; the happiness that patients feel, which is not necessarily influenced by the healthcare delivery process (LaVela and Gallen, 2014). Also, some patients may simply feel happy for reasons that might not give them any health benefit.

There are some mitigating remedies that are applied in some patient experience surveys. A study by Jenkinson et al. (Jenkinson, et al., 2002b), found that Picker Institute's dimensions for measuring patient experience deals with upward bias in satisfaction scores. The Cronbach alpha has been used to validate the responses of respondents. Because the statistic scores satisfaction across eight patient experience dimensions, invalid responses are identifiable.

It is important to match characteristics of patients appropriately, before running a paired analysis across intervention groups and control groups, however. Blundell and Dias (2000) say that because quasi-experimental data are not drawn from random samples. Individuals who would self-select themselves to participate in the intervention groups of public programmes, or managed care programmes for that matter, are predisposed and their participation is not random. Careful consideration of available identification strategies that are used in micro-econometric evaluation techniques will be crucial.

The New Zealand Health Quality & Safety Commission (HQSC) sought to understand patient experience in order to inform healthcare initiatives (HQSC, 2014). Specifically, it sought to use the information to improve patient safety and clinical effectiveness. It conducted a survey on four of the Picker Institute dimensions of patient experience. The methods included i) a random sample drawn on patients with mailing addresses and telephones; ii) a weighting of the sample to obtain a more realistic reflection of the underlying population, as the weighting was based on demographic criteria, effecting a stratified sample; iii) the survey tool was mailed to candidate respondents. The study reported overall patient experience scores for the following dimensions: i) communication; ii) partnership; iii) coordination and iv) physical and emotional needs.

The study focused on patients with Type I and Type II diabetes (Harris, et al., 2007). The questionnaire incorporated questions on the frequency of care interventions, and patient experience. A stratified sampling technique was conducted on English clinics where the target population received care. The study also applied weights to the sample to make clinic populations comparable by patient characteristics. No specific mention was made about propensity score weighting, although the weighting exercise was applied to control for dissimilarities between compared groups.

This document (NHS, 2014) contains statistical methods guidance notes on calculating overall patient experience scores. The methodology was used to develop the survey tool in the appendix of this concept paper.

The paper by Clever et al. (2008) sought to find the impact of how doctors communicated with patients, and patient satisfaction for in-hospital stays. The authors were only interested in the impact of doctor patient communication, and not in other patient experience dimensions. Therefore, they applied an instrumental variable identification technique to control for bias the that patient experience might have on patient satisfaction.

Dale et al. (2016) conducted a study to assess how program interventions by CMS would have an impact on healthcare utilisation, healthcare costs and patient experience. Participating GP practices were given a subsidy to incorporate interventions into the operation of their practices.

The primary identification strategy was the difference-in-differences approach (Dale, et al., 2016). Propensity score matching was used to match treatment and control group characteristics. The study found significant improvements in the management of high-risk patients. This was associated with significant positive findings in two patient experience dimensions.

In this study van Hasselt et al. (2015) investigated whether there would be a significant difference in the utilisation indicators, between practices that participated in a patient-centred program and those that didn't. The investigators used a panel data for their analysis, and thus applied a difference-in-difference identification strategy in their regression. They also controlled for differences in the characteristics in the intervention and control groups by using propensity score matching technique.

Rodriguez et al. (Rodriguez, et al., 2010) compared patient experience between different social groups. Their intention was to see if differences in healthcare experiences could be explained by ethnic background. They found that large differences in reported patient experience could be explained by ethnicity.

2.2 Emerging Themes

The emerging themes from the literature review are compelling. They are listed below.

2.2.1 Cultural shift in health system planning

Patient preferences regarding how they are engaged in their health seeking, is a basis for improving:

- clinical effectiveness,
- patient safety,
- pay-for-performance initiatives,
- re-engineering of primary healthcare delivery systems, and
- market efficiency through more informed patients on the demand-side.

2.2.2 Better policy implementation

South Africa has great healthcare policies, however, there may be coordination issues that are impeding effective delivery. Patient experience information can help the country to reach the intended target populations.

2.2.3 There is a difference between the nature of a patient experience, and patient satisfaction survey. Combining the two concepts in a survey allows for a richer understanding of patient-centred care outcomes. One can establish the level of satisfaction enjoyed by a beneficiary, and the reasons behind the satisfaction status.

- 2.2.4 There is a difference between Patients Reported Measurement Surveys (PROMS), and Patient Reported Experience Measures (PREMS).
- 2.2.5 The literature points to a positive association between patient experience and treatment adherence by patients. Thus, patient experience can be used to derive good clinical outcomes for people with chronic conditions.
- 2.2.6 There are seven patient experience dimensions:
- Respect for patients values, preferences and expressed needs;
 - Co-ordination and integration of care;
 - Information, communication, and education;
 - Physical comfort;
 - Emotional support and alleviation of fear and anxiety;
 - Involvement of family and friends; and
 - Transition and continuity.

3 METHODS

3.1 Framework of Analysis

This section assesses the feasibility of evaluating disease management programmes. The section:

- describes the structural nature of the environment underlying the phenomenon being measured;
- describes the policy gap which the analysis of patient experience seeks to close; and
- describes the principles that improve patient behaviour regarding treatment adherence in the disease management process.

Figure 2 shows how CMS intends to close the knowledge gap regarding outcomes of targeted interventions at MCO level, and policy development and monitoring.

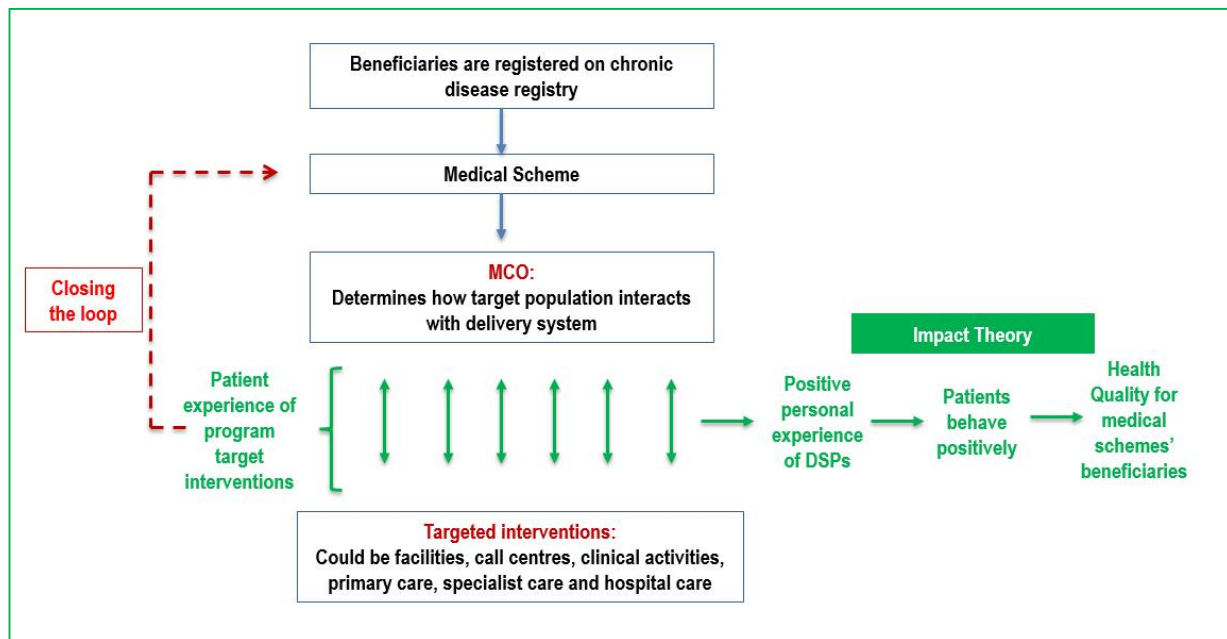


Figure 2: Logic model for patient experience survey

Figure 3 shows the different patient experience dimensions that are incorporated into the survey tool. The survey tool is designed to capture the process dimensions of the Donabedian approach to measuring patient-centred care.

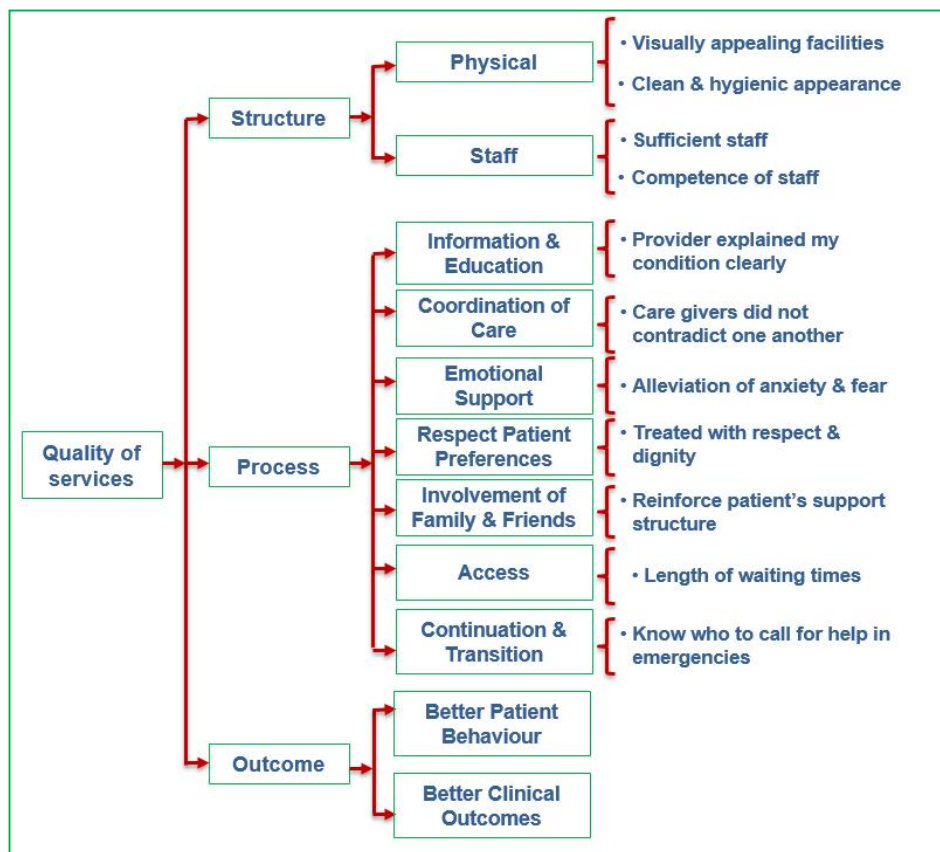


Figure 3: Survey tool with Picker Institute dimensions of patient experience

Note: Adopted from (Chang & Chang, 2013, p. 241)

Figure 4 shows the link between patient experience dimensions, and clinical interventions in the healthcare process. The figure shows how patient experience dimensions are linked to clinical tests for people with diabetes. The quality process reflects a causal relationship to patient experience, patient treatment adherence behaviour, and clinical outcomes.

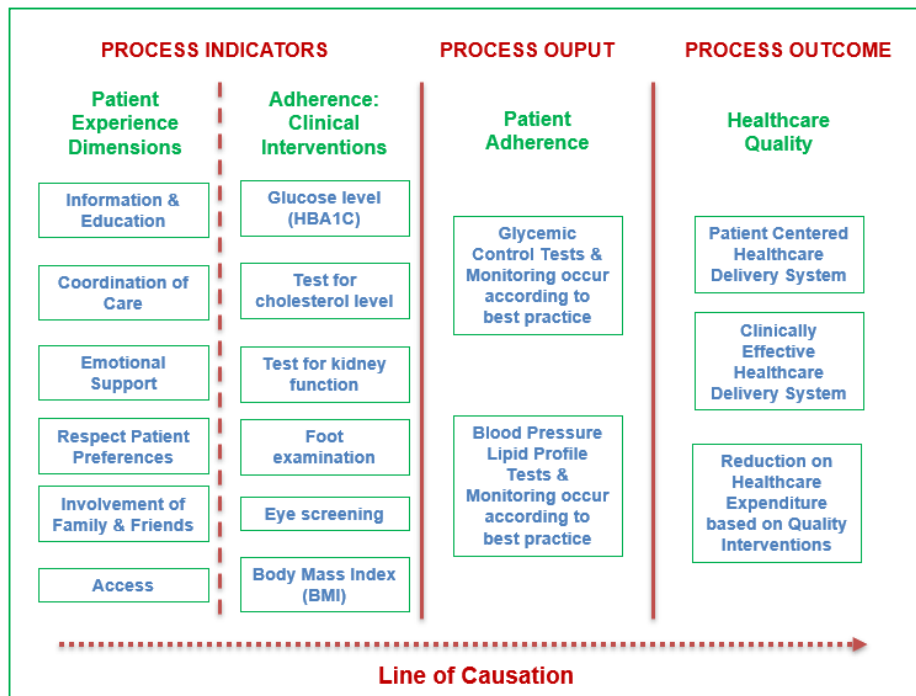


Figure 4: Matching patient experience to clinical effectiveness

Figure 5 shows the importance of matching patients by demographic and other characteristics, to make sure that the groups that are compared in the study have the propensity to behave the same way. Otherwise, the effects of endogeneity introduced by non-random samples will have an impact on the final treatment effect being estimated.

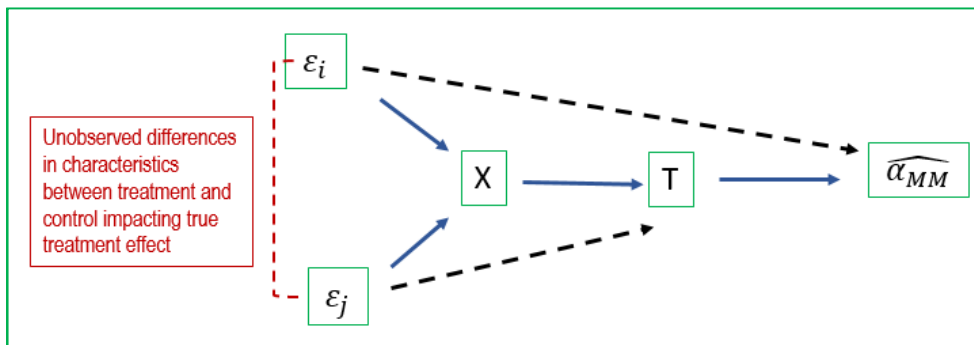


Figure 5: Matching by observable characteristics
 Note: Modification of (Elwert & Winship, 2014, p. 17)

3.2 Questionnaire Development

3.2.1 Literature review

The literature search strategy contained the following activities and search criteria:

- i) Google scholar search & EBSCO Host
- ii) Key words
 - (patient experience survey)
 - (patient reported experience measures)
 - (patient reported outcome surveys)
 - (Donabedian healthcare quality model)
 - (CAHPS surveys)
 - (Consumer Quality Index)
- iii) Screened literature for relevance & used cited literature

3.2.2 Questionnaire design & principles

Table 1 provides a detailed breakdown of the principles that underpin the patient experience survey questionnaire. The dimensions emanate from tried and tested theoretical assumptions that capture patient experience. Health research institutions have conducted surveys, case studies and developed patient experience surveys for in and out of hospital services. Such institutions as the Commission for Medicare and Medicaid (CMS), the Picker Institute, and the National Health Service (NHS). An explanation of the table is provided in the subheadings below.

Table 1: The principles behind the patient experience questionnaire

Dimension	Variable	Rationale
Access & waiting times	Easy access	Fast access to reliable health advice and care
	Waiting times	Access is not rationed by long waiting times, and appointments are not postponed
Respect & inclusive decisions	Respect for patient	Patients are treated with dignity, kindness, compassion, courtesy, respect, understanding and honesty (dignity & respect)
	Inclusive decision making	Patients are actively involved in shared decision making and supported by healthcare professionals to make fully informed choices about investigations, treatment and care that reflect what is important to them. (decision making) (express preferences and informed choice)
	Explained diagnosis	Patients are supported by healthcare professionals to understand relevant treatment options, including benefits, risks and potential consequences. (information & communication)
	Knows prescription	Patients are supported by healthcare professionals to understand relevant treatment options, including benefits, risks and potential consequences. (educating the patient) (information and communication)
	Knows test results	Patients are supported by healthcare professionals to understand relevant treatment options, including benefits, risks and potential consequences. (educating the patient) (information and communication)
Management of diabetes	Discuss diet	Allow patients to actively participate in their care (allow opportunity to self-manage) (tailored service to meet individual's needs)
	Discuss physical exercise	Evidence of local arrangements to ensure that patients have their physical needs regularly assessed and addressed (allow opportunity to self-manage) (tailored service to meet individual's needs)
	Discuss disease management	Allow patients to actively participate in their care (allow opportunity to self-manage) (tailored service to meet individual's needs)
Emotional & psychological support	Emotional support	Evidence of local arrangements to ensure that patients have their psychological needs regularly assessed and addressed. (knowing the patient as an individual) (social, personal and psychological factors taken into account)
	Confident managing condition	Patients have opportunities to discuss their health beliefs, concerns and preferences to inform their individualised care. (knowing the patients as an individual)
	Consistent messages	Patients experience coordinated care with clear and accurate information exchange between relevant health and social care professionals. (knowing the patient as an individual) (coordinated care)
	Integrate family support	Patients are able to be supported by family structure and this reinforces after service-point care (knowing the patient as an individual) (continued care)

NICE, 2012b. Patient experience in adult NHS services

(NICE, 2012a) Patient experience in adult NHS services: improving the experience of care

Access and waiting times

Access to health services and waiting times are not patient experience dimensions. They are structural factors that are related to health system design and service delivery. They have been added to patient experience survey questionnaire to allow health planners to be more responsive to health service capacity planning. This remains relevant in the south African private and public health delivery system. The Competition Commission Health Market Inquiry, and National Health Insurance White Paper have driven the importance of accessible networks home. Coordinated and accessible networks are important issues in the South African health policy environment.

Respect & inclusive decision making

This principle is defined by five patient experience variables, explained in the following sub-headings.

Respect for the patient:

The variable captures treating the patient with:

- dignity and respect;
- compassion;
- courtesy;
- respect;
- understanding; and
- honesty.

Inclusive decision making:

This concept allows the patient to feel that interventions are made in consideration of what is important to them. This variable includes captures the following concepts:

- inclusive decision making;
- patients can express their preferences; and
- patients are enabled to make informed choices.

Explained diagnosis:

This variable is underpinned by the provision of information and effective communication. If the diagnosis is well explained by the care giver, it allows:

- the patient to be exposed to different care options;
- the patient to be aware of benefits and risks; and
- the patient to make informed choices.

Knows prescription:

The patient is likely to know or understand his/her prescription if information is provided, and it is given with effective communication.

Knows test results:

For the patient to be fully aware of their test results, it requires:

- effective communication;
- provision of relevant information; and
- patient education or making the patient aware.

Management of diabetes

There are practices which empower the patient to manage their diabetes. These are:

- providing the patient with the opportunity to do so;
- by discussing their diet, exercise, and disease management habits; and
- this also allows the patient to tailor their service to meet their individual needs.

Emotional & psychological support

Emotional support:

- Knowing the patient as an individual; and
- Consideration of psycho-social factors.

Confidence in managing condition:

Knowing the patient's individual needs allows for the patient to gain confidence in managing their condition.

Consistent messages:

This variable speaks to care coordination.

Integrate family support structure:

Providing the patient's family with relevant information and support, re-enforces the continued care the patient receives.

3.2.3 Consultation with CMS staff

The following focused group discussions were carried out:

- Accreditation Unit analysts responsible for the registration of managed care organisations were asked to critique and comment on the survey tool design which was based on the literature and international best practice templates.
- Clinical Unit analysts responsible for the registration of managed care organisations were asked to critique and comment on the survey tool design which was based on the literature and international best practice templates.

3.2.4 Internal piloting with CMS staff

There was an internal pilot conducted at CMS. The objective of the pilot was to test the understandability of the survey tool.

3.3 Target Population

All Medical scheme beneficiaries registered on disease management programs. The total population or prevalence of diabetes, as per CMS entry and verification criteria, is 303 404 beneficiaries.

3.4 Data Collection

- The IT unit at CMS loaded the survey questionnaire on to a portal for medical scheme beneficiaries with diabetes to access.
- The questionnaire was made live for population for two weeks.
- Medical schemes' principal officers were sent notices requesting them to ask beneficiaries with diabetes 1 and 2 to complete the questionnaire.

3.5 Sampling

3.5.1 Sample size

Figure 6 below reports the output for calculating a sample size on the planned full target population survey. The sample size was not pre-determined. Since there were no research materials on patient experience for diabetic beneficiaries in the South African medical schemes industry, it was not clear what the true population parameters are.

Using a sample size calculator, we established that the required sample size was 4 269 beneficiaries. The parameters used are as follows:

- 95% confidence level
- A confidence interval of 1.5%
- The calculation is based on Bernoulli proportional sampling method, with a conservative 50% chance placed on the assumption of the target population will participate in the survey
- The target population space holder has been left uncompleted, to estimate a maximum sample size, based on an unknown population size.

Find Out The Sample Size

Result

You will need to measure **4269** or more samples.

Confidence Level:

Confidence Interval:

Population Proportion: Use 50% if not sure

Population Size: Leave blank if unlimited population size.

Figure 6: Sample size calculator output
Source: Calculator.net

3.5.2 Response follow-ups & response rate

To secure a favourable response rate, the survey team carried out frequent follow-ups with the following bodies:

- Medical schemes through scheme principal officers
- Diabetes managed care organisations (MCOs)
- Self-regulating funder organisations
- Assistance from the Stakeholder Holder Relations unit at CMS.

After cleaning the data set, the CMS had received 4 327 complete responses.

3.5.3 Weighting strategy

The survey responses were weighted to control for survey bias. The following potential events were contemplated:

- Under-sampling by specific target population characteristics
- Oversampling by specific population characteristics
- A need to attenuate the effects of pessimism or optimism based on gender and age predispositions. However; this is not a complete control for the effect of selection bias. This will be discussed later.

Table 2 below shows the criteria used to weight the survey responses. These were:

- Scheme size;
- Gender; and
- Age.

Table 2: Sample weighting scheme

Scheme Size	Gender	Age Bands
Very Large Schemes	Females	15-34
		35-49
		50-64
		65+
	Males	15-34
		35-49
		50-64
		65+
Large Schemes	Females	15-35
		35-50
		50-65
		65+
	Males	15-36
		35-51
		50-66
		65+
Medium Size Schemes	Females	15-37
		35-52
		50-67
		65+
	Males	15-38
		35-53
		50-68
		65+
Small Schemes	Females	15-39
		35-54
		50-69
		65+
	Males	15-40
		35-55
		50-70
		65+

3.6 Data & Variables

Table 3 shows:

- The underlying principles which the questionnaire sought to measure (patient experience domains/themes);
- The actual survey questions;
- The coded versions of survey questions/variables of interest; and
- A domain for routine treatment adherence behaviour of the beneficiaries.

Table 3: Variables and underlying patient experience domains

Theme	Question Number	Question	Variable
Routine Care	48	In the last 12 months: [How many times has the medical scheme, or diabetes management programme, contacted you with regards to your diabetes condition?]	TimesContacted
	49	In the last 12 months: [How many times have you visited your doctor for your diabetes condition?]	Visits
	50	In the last 12 months: [How many times have you had your blood tested (HbA1c), or blood test sent to the lab to test your blood sugar levels?]	Blood_Test
	51	In the last 12 months: [How many times has your doctor or a nurse measured your weight and height; i.e. Body Mass Index (BMI)?]	Body_Mass
	52	In the last 12 months: [How many times have you had a blood test taken to check your cholesterol level?]	CholestLevel
	53	In the last 12 months: [How many times have you had a foot examination?]	FootExam
	54	In the last 12 months: [How many times have you had a blood test taken to check your Kidney level?]	KidneyCheck
	55	In the last 12 months: [How many times have you had an eye screening examination done?]	Eye_Screening
Access	56	In the last 12 months: [It was easy to access services from my medical scheme, or diabetes management programme.]	EasyAccess
	57	In the last 12 months: [When consulting my doctor for my Diabetes Mellitus, I did not have to wait long for my appointment.]	WaitingTime
Respect	58	In the last 12 months: [I felt I was treated with respect and dignity during my medical scheme calls, and/or doctor visits for my Diabetes Mellitus.]	Respect
	59	In the last 12 months: [I was involved, as much as I wanted to be, in decisions about my care and treatment.]	Inclusive
Information	60	In the last 12 months: [The doctor or nurse explained matters concerning my Diabetes Mellitus, in a clear and understandable manner.]	Explained
	61	In the last 12 months: [The doctor or nurse had a discussion with me regarding the food that I eat and any changes I could make to my diet.]	DiscussDiet
	62	In the last 12 months: [I discussed my levels of physical activity, and changes that I could make to my physical exercise plan.]	DiscussPhysic
	63	In the last 12 months: [During my last appointment, I discussed and agreed with my doctor, about how to manage Diabetes Mellitus.]	DiscussManage
	64	In the last 12 months: [I know why I am prescribed each of the medications for my blood glucose control.]	Knowprescr
	65	In the last 12 months: [I know who to call in emergency situations.]	WhoToCall
	66	In the last 12 months: [I understand the purpose, and meaning of the results, of each of the routine checks/tests for my Diabetes Mellitus.]	KnowResults
	67	In the last 12 months: [I was offered a written, printed or electronic copy of my care plan from my medical scheme.]	KnowCarePlan
Emotional Support	68	In the last 12 months: [The emotional support received from my doctor, nurse or diabetes management programme, has helped to relieve my fear and/or anxieties associated with my diabetes condition.]	EmotionalSup
	69	In the last 12 months: [Due to the support received from my doctor, nurse or diabetes management programme, I am confident about managing my diabetes condition.]	Confident
Coordination	70	In the last 12 months: [I did not experience a situation where: a doctor or nurse will say one thing, and the other will say something quite different, regarding my Diabetes Mellitus condition (this includes electronic and telephone communication).]	ConsistMess
	71	In the last 12 months: [The medical scheme and/or diabetes management programme provided my family with information to support me in coping with my diabetes condition.]	FamilySupInfo
Satisfaction	72	Overall, how would you rate the service that you received from your doctor, nurse or your diabetes management programme, using a scale of 1 to 10? Where 1 is the worst service possible and 10 the best service rendered?	Rate
Recommend	73	Would you recommend the care nurse, doctor or diabetes management programme; who manages your condition, to someone else?	Recommend

3.7 Reliability & Internal Validity of the Survey Tool

3.7.1 Internal reliability of the survey tool

The general rule for survey tool reliability is a Cronbach Alpha of at least 0.7. The table below shows that the Cronbach alpha attained by the survey tool is 0.9 (see table 4). Therefore; the survey tool has internal reliability. The Cronbach Alpha for individual questions can be viewed in the technical notes section.

Table 4: Internal validity results

Cronbach Coefficient Alpha	
Variables	Alpha
Raw	0.932592
Standardized	0.938444

3.7.2 Internal validity of the survey tool

The Confirmatory Factor Analysis (CFA) model was used to test the survey tool, based on the survey development principles, consultation processes and background research. The model assumes a pre-existing hypothesis related to survey tool variables (questions) and underlying patient experience dimensions. The model did not perform well. These results can be found in the technical notes section. As per standard practice, the analysis moved on to the Exploratory Factor Analysis (EFA) method.

Exploratory Factor Analysis (EFA) was used to eliminate common correlations between the questions across the survey tool dimension for patient experience. EFA is used when CFA fails to achieve a good model fit. The method doesn't rely on a pre-existing theoretical hypothesis that is underpinned by literature reviews nor any empirical analysis previously carried out. The workings of the CFA and EFA models are explained in detail in the technical notes section. The results of the EFA are explained under the sub-headings below.

Scree plot:

Figure 7 is a scree plot generated in line with the EFA method. It shows that the optimal number of factors/domains for explaining patient experience should be three.

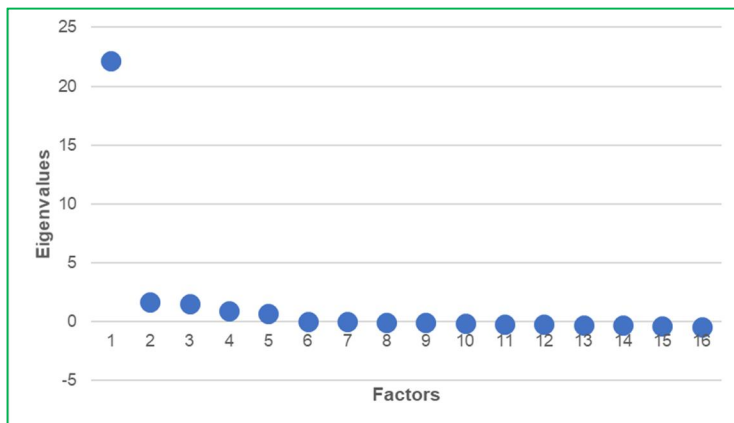


Figure 7: Scree plot of eigenvalues

Hypotheses of Exploratory Factor Analysis:

Table 5 reports the results on a test for number of domains/factors that are required for the survey tool. The results mean that:

- There is more than one domain that is related to patient experience; and
- There may be more than three domains that explain patient experience.

Table 5: Hypotheses for Exploratory Factor Analysis

Significance Tests Based on 4358 Observations			
Hypotheses	DF	Chi-Square	Pr > ChiSq
H0: No common factors	120	45717.08	<.0001
HA: At least one common factor			
H0: 3 Factors are sufficient	75	2949.49	<.0001
HA: More factors are needed			

Table 6 shows that there are:

- Four domains that explain patient experience; and
- Fifteen questions/variables that capture the principles of patient experience for patients with diabetes.

Table 6: Final domains and questions from factor analysis

FACTOR LOADINGS					
Q. No.	Variables	Factor1	Factor2	Factor3	Factor 4
56	Easy Access	0.50399			
57	Waiting Time	0.51288			
58	Respect		0.74599		
59	Inclusive decisions		0.69614		
60	Diagnosis explained		0.57665		
61	Discuss Diet			0.75014	
62	Discuss Physical routine			0.73805	
63	Discuss Management			0.70686	
64	Know prescription		0.54809		
65	Who to call				
66	Know test results		0.53131		
67	Know care plan				
68	Emotional support				0.79547
69	Confident about managing condition				0.78222
70	Consist messages from care team				0.50178
71	Family support -- given information				0.43728

The domains are:

- Factor 1 = Access & waiting time
- Factor 2 = Respect & inclusive decisions
- Factor 3 = Management of diabetes

- Factor 4 = Emotional & psychological support

3.8 Data Analysis

- Summary statistics on respondents' overall scores for patient experience dimensions;
- A t-test on survey responses for each question was conducted, to assess the reliability and credibility of patient experience survey results;
- Summary statistics for patient satisfaction scores; and
- Summary statistics on patient reported adherence.

4 RESULTS

4.1 Characteristics of Survey Participants

Figures 8 and 9 compare the distribution of survey participants, and the target population by age bands. What the two graphs show, is that the age profile of the survey participants is like that of the target populations.

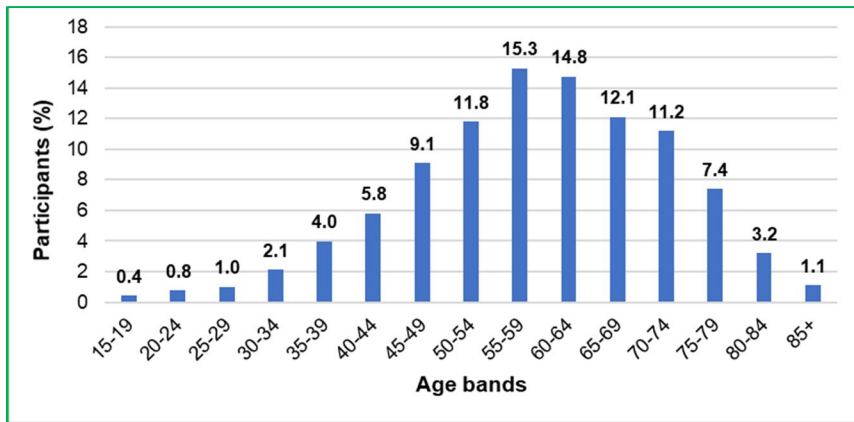


Figure 8: Distribution of survey participants by age band

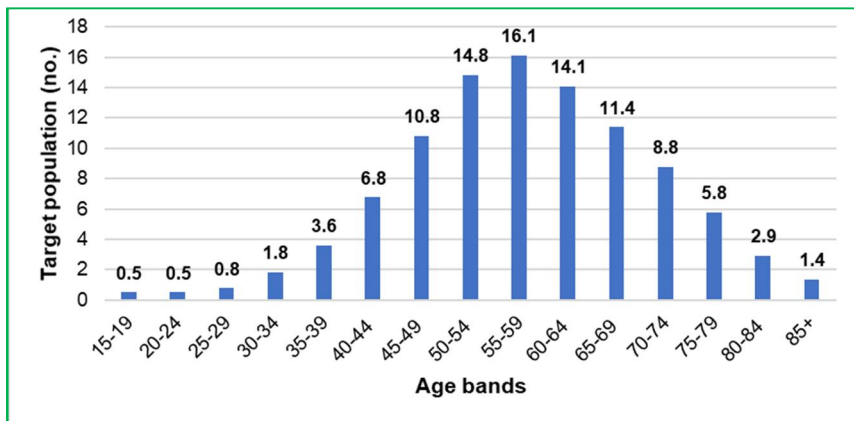


Figure 9: Distribution of target population participants by age band

Figures 10 and 11 compare the distribution of survey participants, and the target population by scheme size. The diabetes patients from the sample and the population share similar representation by scheme size proportions. The largest difference is that of survey participants and target populations from large medical schemes. The survey participants sample is under-sampled by 7%. The weighting schema will augment this difference.

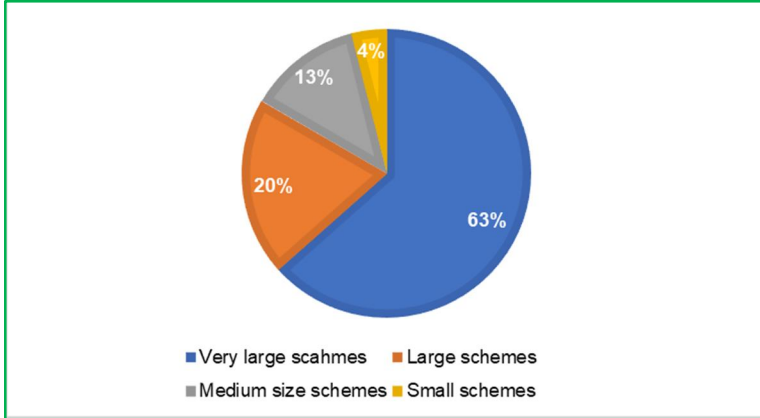


Figure 10: Proportions of survey participants by scheme size

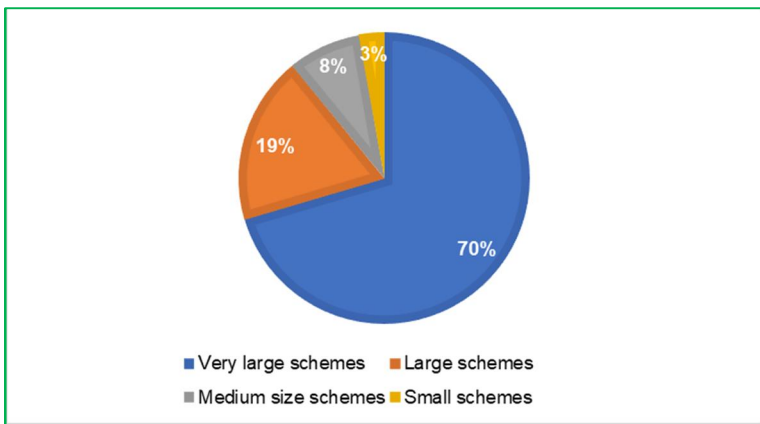


Figure 11: Proportions of target population by scheme size

Figures 12 and 13 compare the distribution of survey participants, and the target population by age and gender. The sampling error is as follows:

- Females are over-sampled in the age bands that represent ages less than 55 years old.
- Females are under-sampled in the age bands that represent ages less than 55 years old.

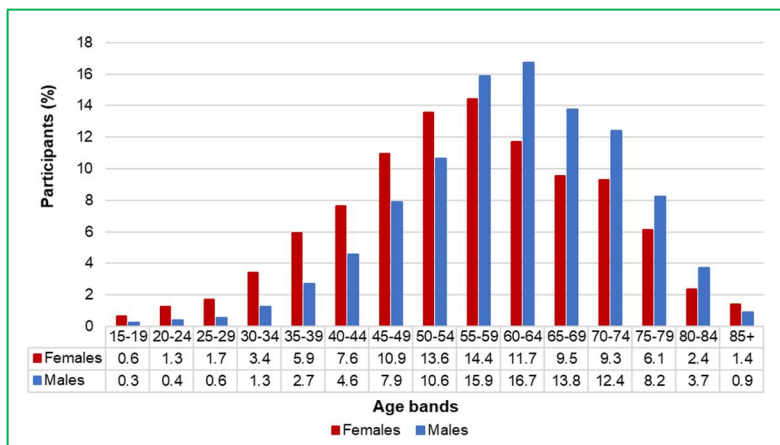


Figure 12: Sample population by gender and age (n=4,358)

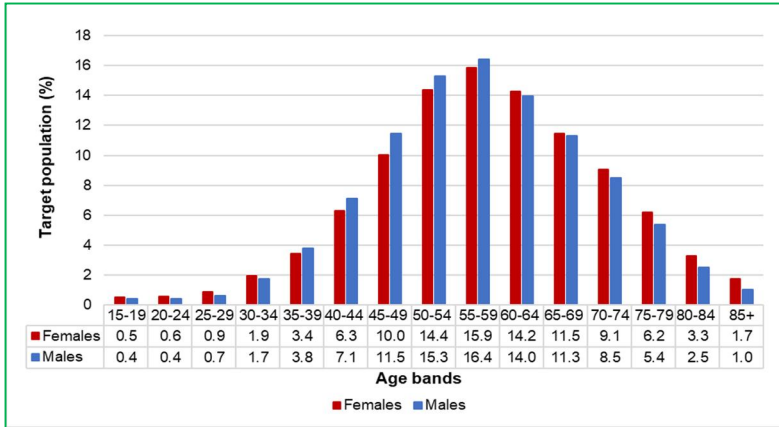


Figure 13: Target population by gender and age

Figure 14 reports the following race/ethnicity proportions among survey participants:

- 65% White
- 13% Asian
- 11% Black; and
- 10% Coloured.

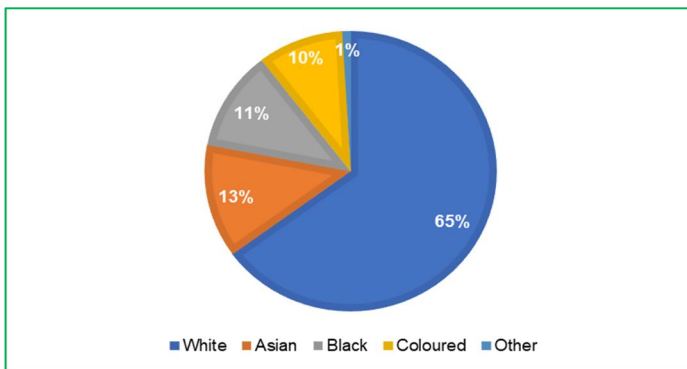


Figure 14: Race/ethnicity of survey participants

Figure 15 shows that 90% of the survey participants are registered on diabetes databases.

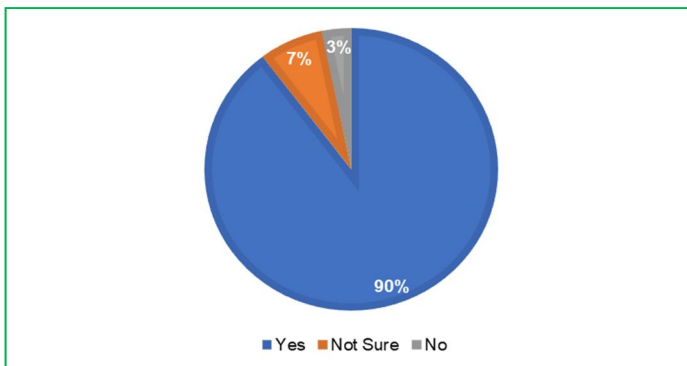


Figure 15: Disease registration status

Figure 16 shows that:

- 71% of survey participants have diabetes type 2
- 19% have diabetes type 1; and
- 10% do not know which type of diabetes they have.

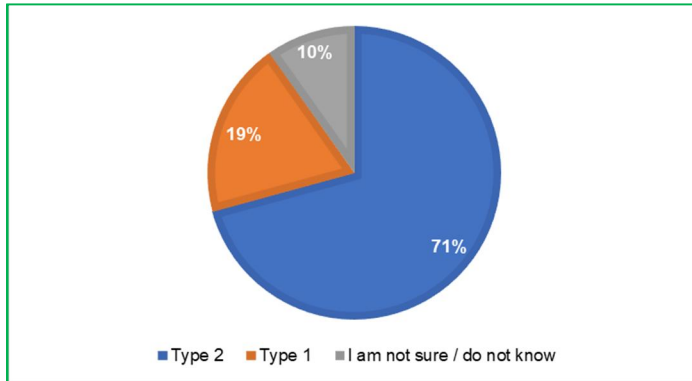


Figure 16: Type of diabetes

In terms of comorbidity, figure 17 shows that:

- 71% of the survey participants have a comorbidity; and
- 29% do not suffer from comorbidities.

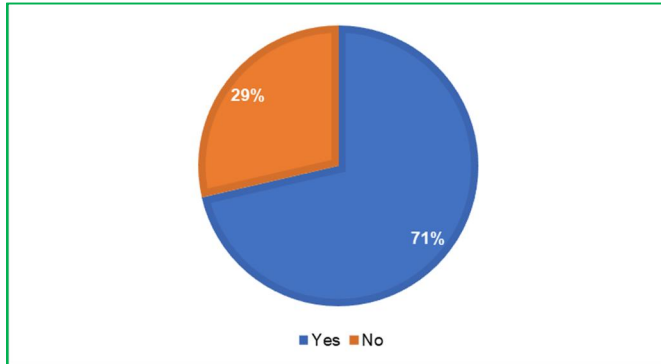


Figure 17: Comorbidity

Figure 18 shows that:

- 58% of the survey participants are on a lifestyle programme, and
- 42% of survey participants are not on a lifestyle programme.

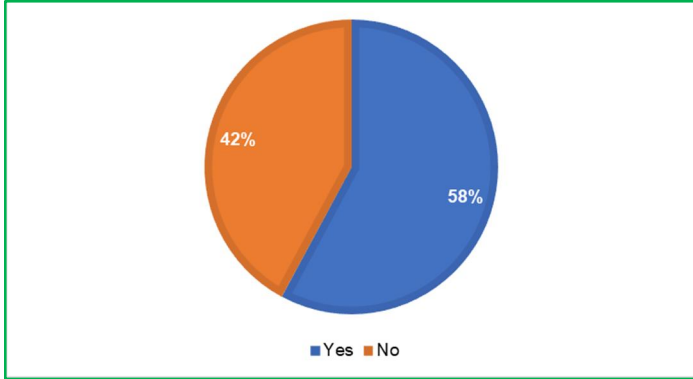


Figure 18: Lifestyle programme

Figure 19 shows that:

- 51% of survey participants are on both an exercise and diet programme;
- 29% of the respondents are not on an exercise or diet programme

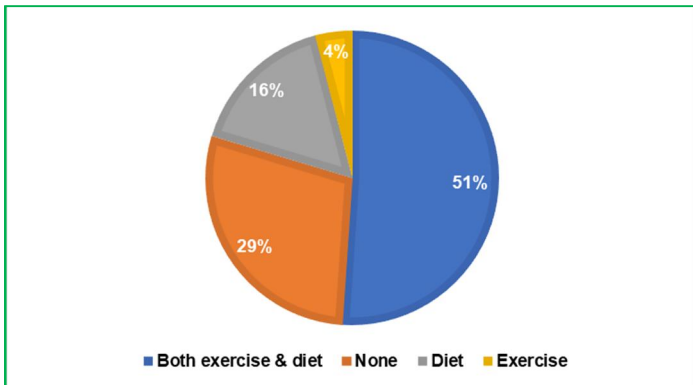


Figure 19: Type of lifestyle programme

Figure 20 shows that:

- 57% of respondents access care through an open network;
- 26% through a DSP; and
- 17% do not know.

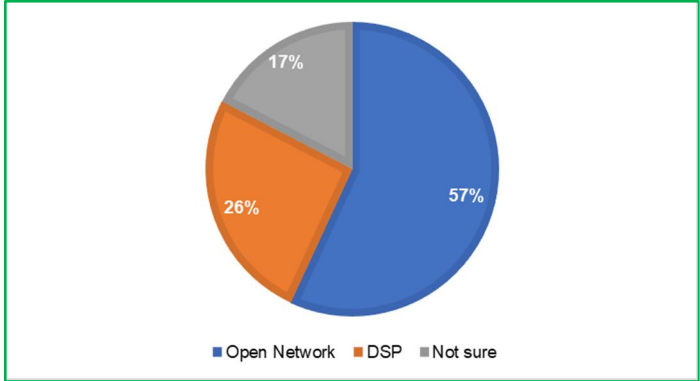


Figure 20: Mode of accessing care

Figure 21 shows that:

- 47% of respondents collect medication from an open network;
- 45% get medication from a DSP; and
- 8% don't know.

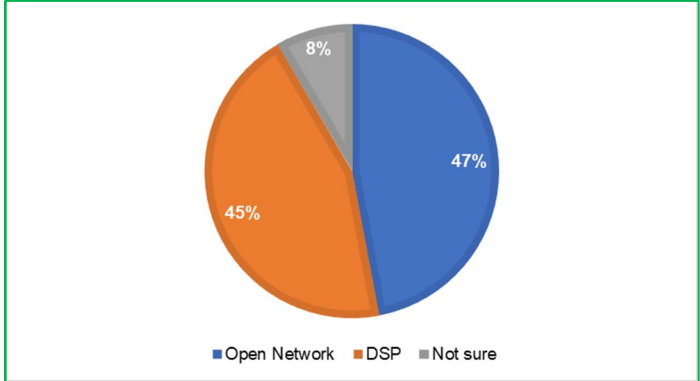


Figure 21: Mode of accessing medication

4.2 Reliability of Patient Experience Scores

Table 7 reports the confidence level's upper and lower bounds for the scores attained by survey question. The high response rates per question have yielded a margin of error that allows for reliability on the patient experience scores. All margins of error are within a one-point difference from the mean patient experience score.

Table 7: Statistical Reliability of patient experience scores

Dimension	Question No.	Variable	Patient Experience Score	N	Lower Bound 95% CL	Upper Bound 95% CL	Margin of Error
Access & waiting times	56	Easy access	69.0	4 327	68.2	69.9	0.850
	57	Waiting timees	78.3	4 327	77.6	79.0	0.700
Respect & inclusive decisions	58	Respect for patient	82.3	4 327	81.7	82.9	0.600
	59	Inclusive decision making	78.6	4 327	78.0	79.3	0.650
	60	Explained diagnosis	81.7	4 327	81.1	82.3	0.600
	64	Knows prescription	82.1	4 327	81.6	82.7	0.550
	66	Knows test results	79.7	4 327	79.0	80.3	0.650
Management of diabetes	61	Discuss diet	75.2	4 327	74.5	76.0	0.750
	62	Discuss physical exercise	71.3	4 327	70.5	72.1	0.800
	63	Discuss disease managemant	75.7	4 327	75.0	76.4	0.700
Emotional & psychological support	68	Emotional support	70.5	4 327	69.8	71.3	0.750
	69	Confident managing condition	73.8	4 327	73.1	74.5	0.700
	70	Consistent messages	74.9	4 327	74.1	75.6	0.750
	71	Integrate family support	54.1	4 327	53.1	55.1	1.000

4.3 Overall Patient Experience Scores

Figure 22 reports the overall, and dimensional patient experience scores; for diabetes 1 and 2. The results are as follows:

- Overall score is 74;
- The score for the emotional and psychological dimension is 68;
- The score for access and waiting times is 68;
- The score for the management of diabetes is 74; and
- The score for the respect and inclusive decisions dimension is 81.

The highest score is for respect and inclusive decisions. The emotional and psychological score pulls the overall score down. Access and waiting times, and respect and inclusiveness are the same as the overall score.

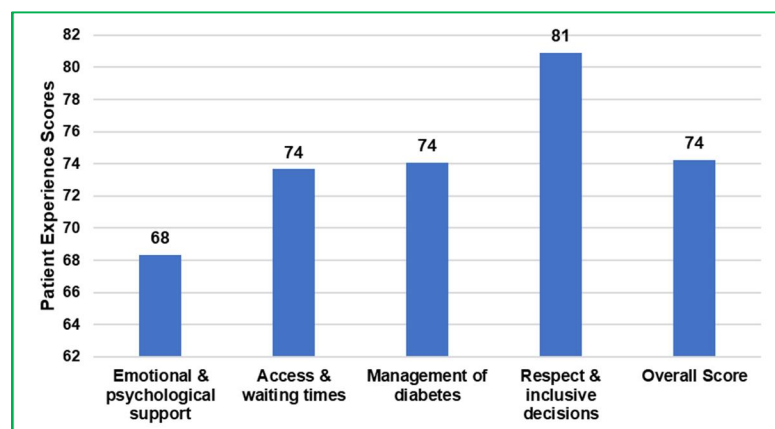


Figure 22: Overall patient experience scores (n=4 327)

Figure 23 reports the patient experience scores for diabetes 1 and 2, across all the survey questions on patient experience. The results are:

- The highest score is for respect for patient, it has a score of 82; and
- The lowest score is for integrated family support, it has a score of 54.

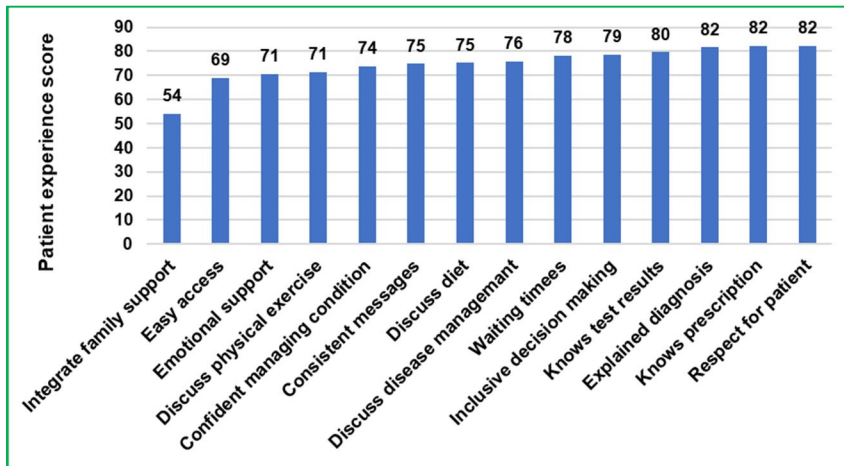


Figure 23: Survey question experience scores (n=4 327)

Figure 24 reports the overall, and dimensional patient experience scores; for diabetes 1. The results are as follows:

- Overall score is 75;
- The score for the emotional and psychological dimension is 68;
- The score for access and waiting times is 73;
- The score for the management of diabetes is 76; and
- The score for the respect and inclusive decisions dimension is 83.

The highest score is for respect and inclusive decisions. The emotional and psychological score pulls the overall score down. Access and waiting times, and respect and inclusiveness are the same as the overall score.

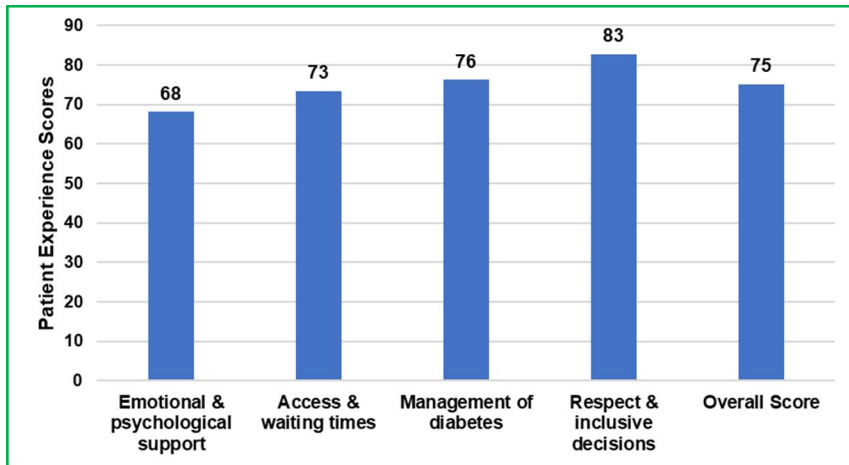


Figure 24: Experience scores for diabetes 1 (n=844)

Figure 25 reports the patient experience scores for diabetes 1, across all the survey questions on patient experience.

The results are:

- The highest score is 'knows prescription', it has a score of 85; and
- The lowest score is for integrated family support, it has a score of 54.

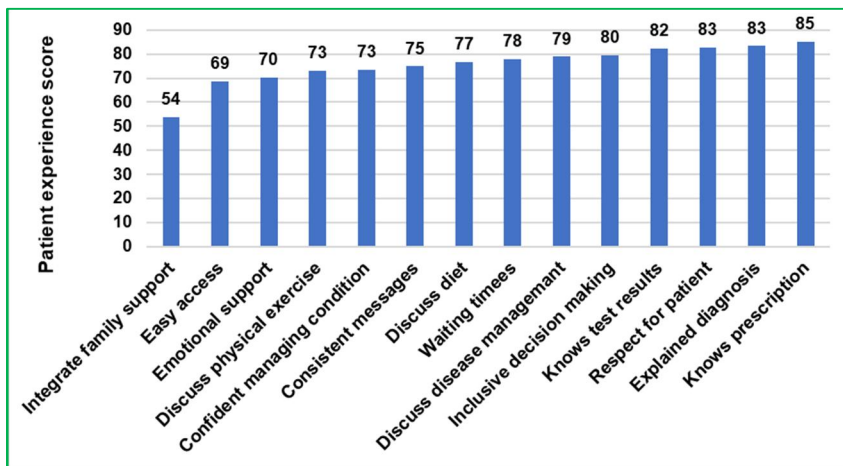


Figure 25: Survey question experience scores -- diabetes 1 (n=84)

Figure 26 reports the overall, and dimensional patient experience scores; for diabetes 2. The results are as follows:

- Overall score is 75;
- The score for the emotional and psychological dimension is 74;
- The score for access and waiting times is 81;
- The score for the management of diabetes is 74; and
- The score for the respect and inclusive decisions dimension is 69.

The highest score is for access and waiting times. The respect and inclusive decision scores pull the overall score down.

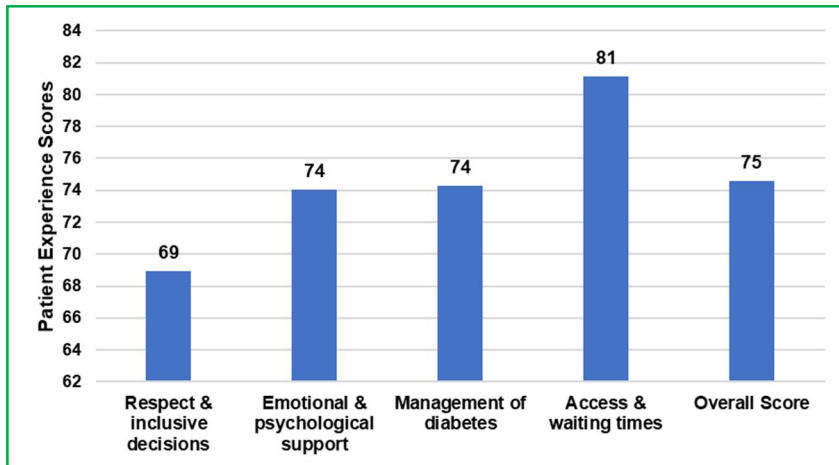


Figure 26: Experience scores for diabetes 2 (n=3,061)

Figure 27 reports the patient experience scores for diabetes 2, across all the survey questions on patient experience.

The results are:

- The highest score is 'respect for patient', it has a score of 83; and
- The lowest score is for integrated family support, it has a score of 55.

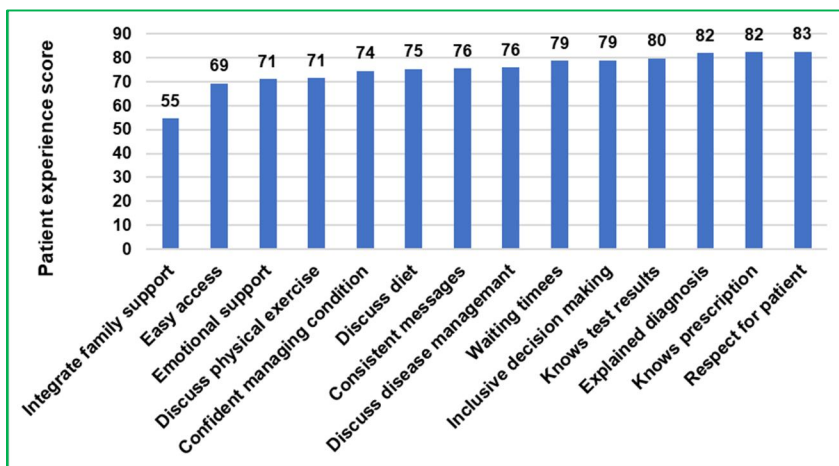


Figure 27: Survey question experience scores – diabetes 2 (n=3,061)

4.4 Patient Experience and Satisfaction by Promoter Scores

Figure 28 describes the different degrees of satisfaction that are felt by survey participants. They are as follows:

- 47.7% are highly likely to promote the care giver/managed care provider;
- 30.9% are likely to promote the care giver/managed care provider;
- 13.6 % are passive participants;
- 4.5% are unlikely to promote the care giver; and
- 3.4% are highly unlikely to promote their care giver's services.

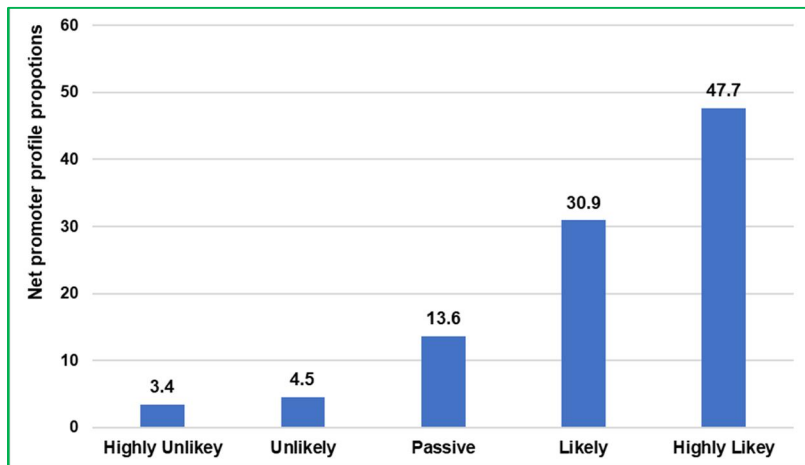


Figure 28: Promoter profiles (n=4 327)

Figure 29 describes the experience of participants who are highly likely to promote their care giver. The results are as follows:

- The highest score is for 'explained diagnosis', the score is 91; and
- The lowest score is for 'integrated family support', the score is 67.

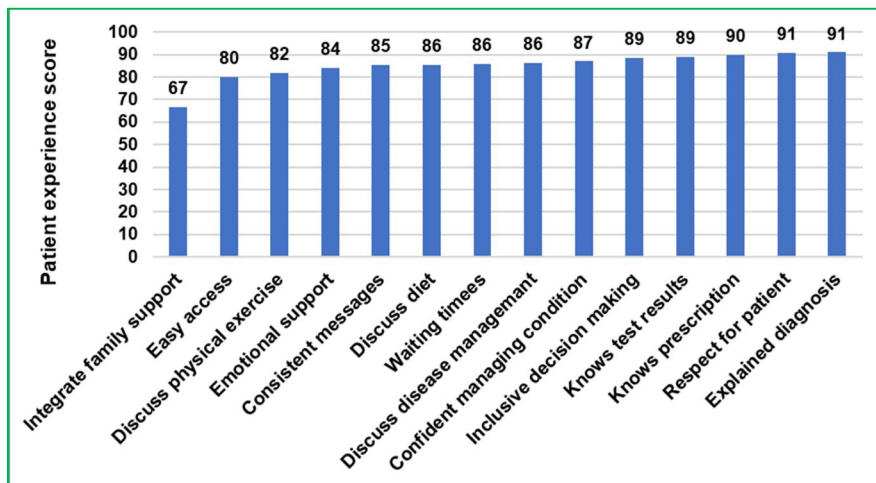


Figure 29: Experience of Highly Likely promoters (n=2 064)

Figure 30 reports the treatment adherence of survey participants that are highly likely to promote their care giver/manged care provider. The results are as follows:

- The number of visits to their care giver is 3.2 visits per 12-month intervals;
- The number of times they are contacted by their service providers is 2.2 times per 12-moth intervals;
- The highest level of adherence behaviour is for blood tests -- 3.1 times per 12-month period; and
- The lowest level of adherence is for kidney checks – 2.2 times per 12-month cycle.

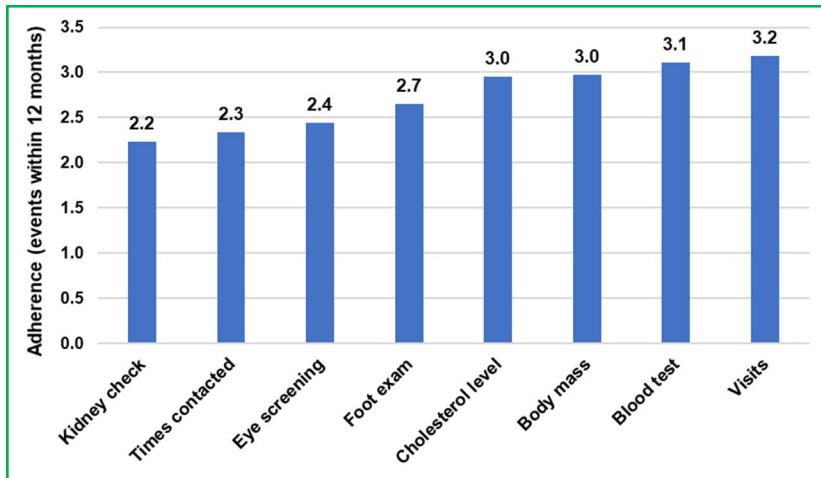


Figure 30: Patient adherence of Highly Likely promoters (n=2,064)

Figure 31 describes the experience of participants who are likely to promote their care giver. The results are as follows:

- The highest score is for 'knows prescription', the score is 80; and
- The lowest score is for 'integrated family support', the score 49.

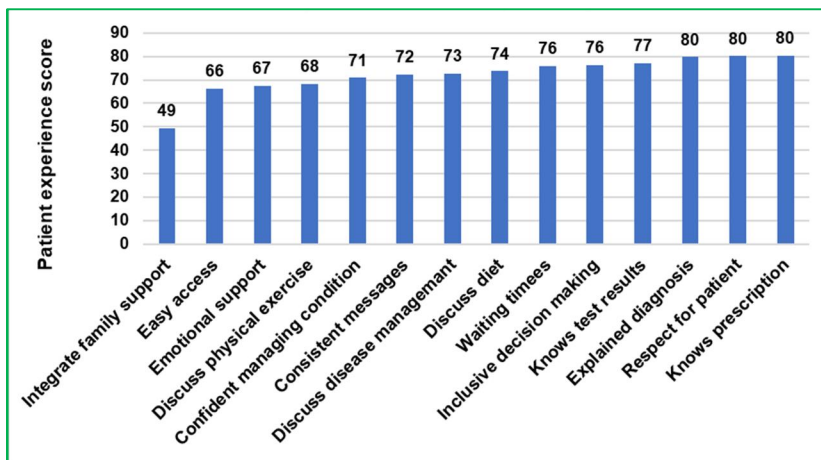


Figure 31: Experience of Likely promoters (n=1,337)

Figure 32 reports the treatment adherence of survey participants that are likely to promote their care giver/manged care provider. The results are as follows:

- The number of visits to their care giver is 3.1 visits per 12-month intervals;
- The number of times they are contacted by their service providers is 1.9 times per 12-moth intervals;
- The highest level of adherence behaviour is for blood tests -- 3.0 times per 12-month period;
- The lowest level of adherence is for kidney checks – 1.9 times per 12-month cycle.

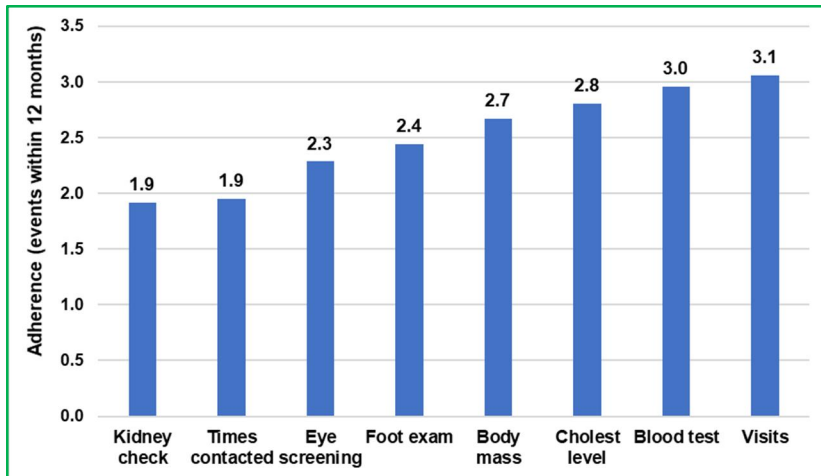


Figure 32: Patient adherence of Likely promoters (n=1,337)

Figure 33 describes the experience of participants who are passive when it comes to promoting the services of their care giver. The results are as follows:

- The highest score is for 'respect for patient', the score is 71; and
- The lowest score is for 'integrated family support', the score 36.

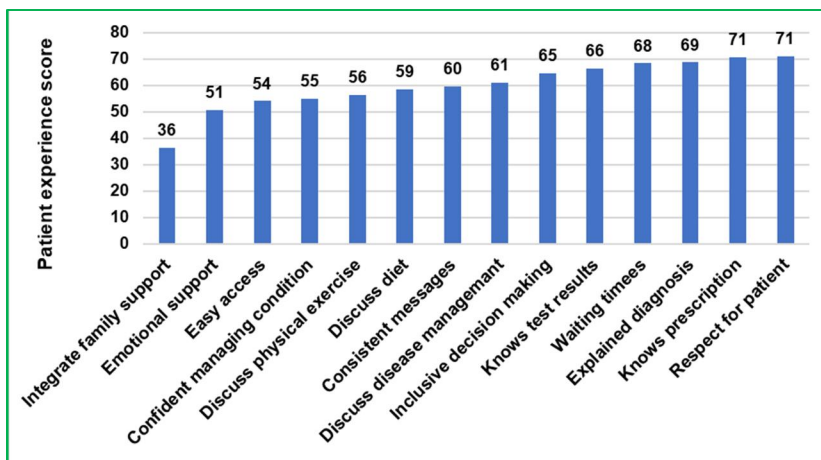


Figure 33: Experience of Passive promoters (n=588)

Figure 34 reports the treatment adherence of survey participants that are passive when it comes to promoting the services of their care giver/managed care provider. The results are as follows:

- The number of visits to their care giver is 2.9 visits per 12-month intervals;
- The number of times they are contacted by their service providers is 1.7 times per 12-moth intervals;
- The highest level of adherence behaviour is for blood tests – 2.8 times per 12-month period; and
- The lowest level of adherence is for kidney checks – 1.7 times per 12-month cycle.

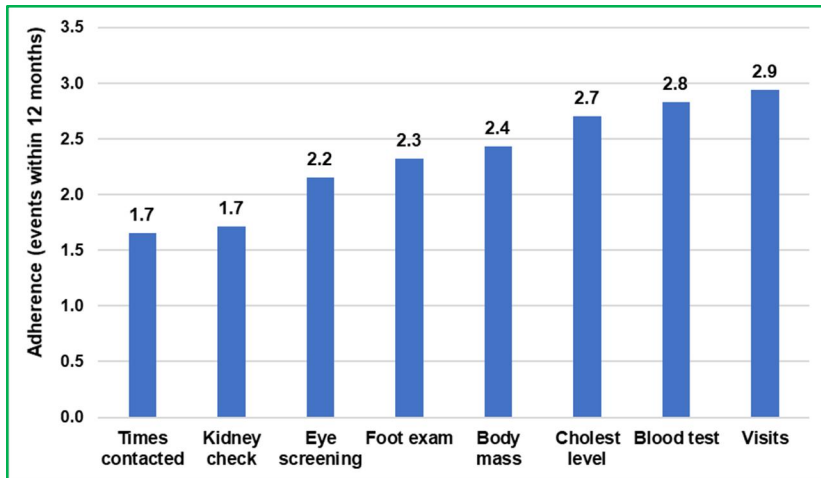


Figure 34: Patient adherence of Passive promoters (n=588)

Figure 35 describes the experience of participants who are unlikely to promote the services of their care giver. The results are as follows:

- The highest score is for 'discuss diet', the score is 64; and
- The lowest score is for 'integrated family support', the score 30.

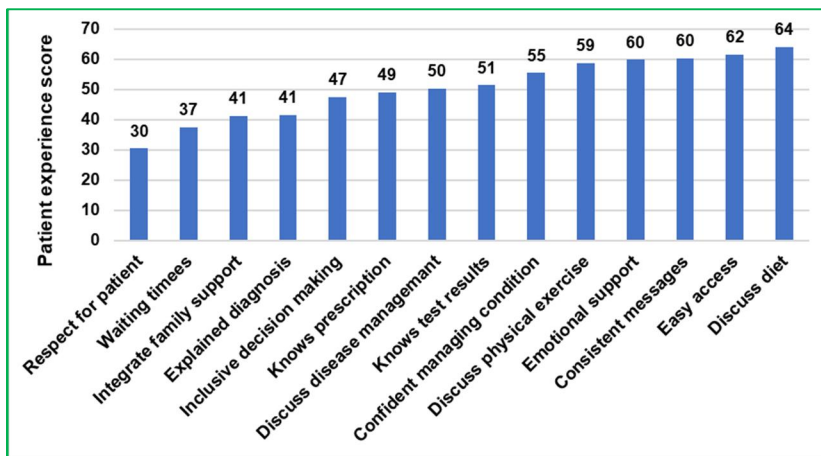


Figure 35: Experience of Unlikely promoters (n=193)

Figure 36 reports the treatment adherence of survey participants that are unlikely to promote the services of their care giver/manged care provider. The results are as follows:

- The number of visits to their care giver is 2.8 visits per 12-month intervals;
- The number of times they are contacted by their service providers is 1.6 times per 12-moth intervals;
- The highest level of adherence behaviour is for blood tests – 2.6 times per 12-month period; and
- The lowest level of adherence is for kidney checks – 1.5 times per 12-month cycle.

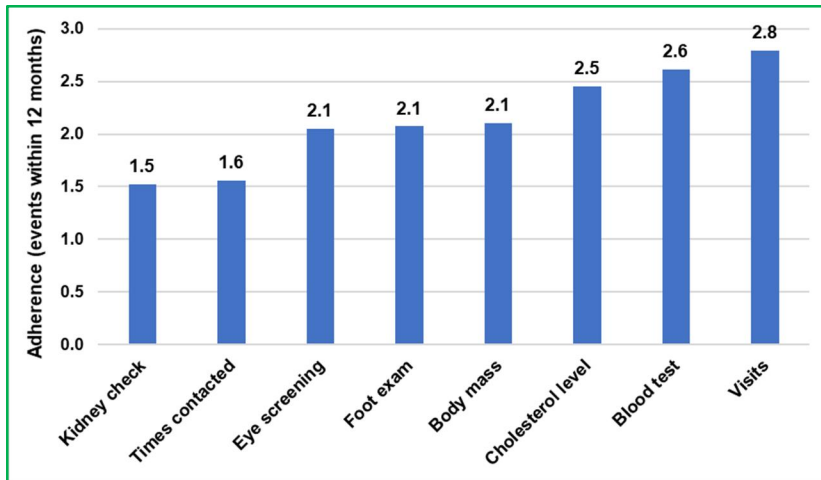


Figure 36: Patient adherence of Unlikely promoters (n=193)

Figure 37 describes the experience of participants who are highly unlikely to promote the services of their care giver.

The results are as follows:

- The highest score is for 'discuss diet', the score is 61; and
- The lowest score is for 'integrated family support', the score 22.

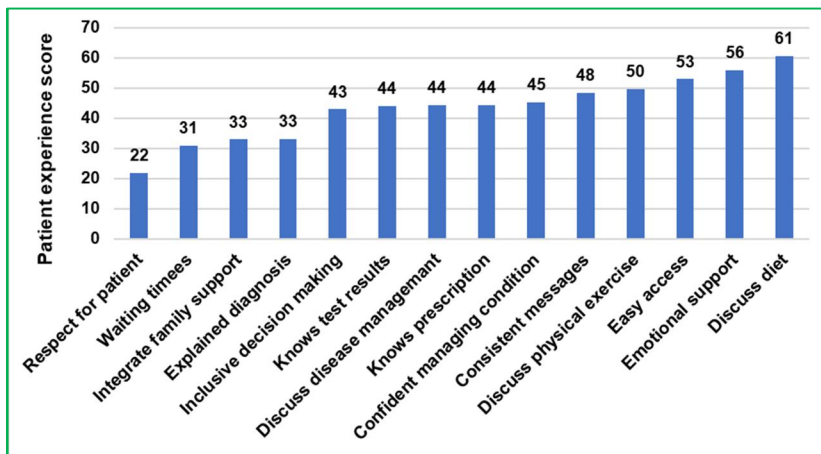


Figure 37: Experience of Highly Unlikely promoters (n=145)

Figure 38 reports the treatment adherence of survey participants that are highly unlikely to promote the services of their care giver/managed care provider. The results are as follows:

- The number of visits to their care giver is 2.6 visits per 12-month intervals;
- The number of times they are contacted by their service providers is 1.5 times per 12-month intervals;
- The highest level of adherence behaviour is for blood tests – 2.5 times per 12-month period; and
- The lowest level of adherence is for kidney checks – 1.5 times per 12-month cycle.

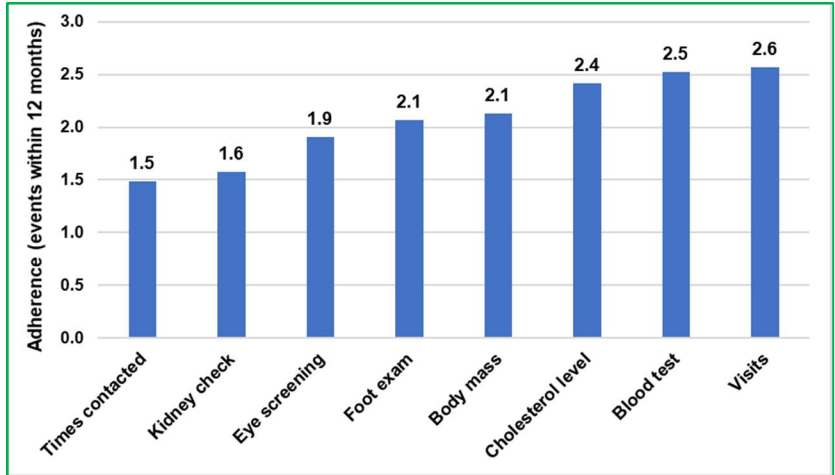


Figure 38: Patient adherence of Unlikely promoters (n=145)

5 FINDINGS

Findings from survey tool development process

Cultural shift in health system planning

Patient preferences regarding how they are engaged in their health seeking, is a basis for improving:

- clinical effectiveness,
- patient safety,
- pay-for-performance initiatives,
- re-engineering of primary healthcare delivery systems, and
- market efficiency through more informed patients on the demand-side.

Better policy implementation

South Africa has great healthcare policies, however, there may be coordination issues that are impeding effective delivery. Patient experience information can help the country to reach the intended target populations.

Distinction between patient experience and patient satisfaction

There is a difference between the nature of a patient experience, and a patient satisfaction survey. Combining the two concepts in a survey allows for a richer understanding of patient-centred care outcomes. One can establish the level of satisfaction enjoyed by a beneficiary, and the reasons behind the satisfaction status.

Distinction between PROMS and PREMS

There are differences between Patients Reported Measurement Surveys (PROMS), and Patient Reported Experience Measures (PREMS).

- PROMS collect patients' responses on whether their expectations were met, regarding the clinical quality of care outcomes received.
- PREMS collect patients' responses regarding the interpersonal care relationships they experience with their care providers.

[Positive association between good patient experience and good treatment adherence](#)

- The research literature points to a positive association between patient experience and treatment adherence by patients. Thus, patient experience can be used to drive good clinical outcomes for people with chronic conditions.
- The NHS is using patient experience surveys to be more responsive to patient needs and improving health outcomes. This is positive for health delivery systems with human resource despondency.

[Patient experience dimensions](#)

The patient experience dimensions which are measured are:

- Access and waiting times;
- Respect and inclusive decisions;
- Management of diabetes;
- Emotional and psychological support; and
- Care coordination

[Afrikaans speaking respondents](#)

Some targeted respondents did not participate as they were Afrikaans speaking.

[Pre-estimated sample sizes](#)

Because this was a first attempt at patient experience survey, it was difficult to establish what level of confidence is required for entity level survey submissions. This has meant that the analysis has not been able to provide a rating of managed care experienced by beneficiaries. Further needs to be done in close collaboration with the industry.

[Lack of ethnicity/race data collected by CMS](#)

The lack of ethnicity/race data has meant that the weighting schema could not adjust for under-sampling of certain race groups. This could have introduced bias to the patient experience measures. The reason is that some conditions, especially diabetes, have higher prevalence in specific ethnic groups.

[Internal Reliability of Survey Tool](#)

The Cronbach alpha has confirmed the internal reliability of the piloted survey tool. This means that survey respondents have been able to consistently answer survey questions in a specific pattern, which confirms reliability on participants' responses.

Internal validity

The internal validity of the survey tool was achieved by applying statistical model work independent of pre-existing patient experience tools. Some questions and patient experience dimensions were dropped, resulting in a revised structure for the survey tool. This structure should be used to roll-out further work on patient experience.

Valid domains and questions

There are:

- Four domains that explain patient experience; and
- Fifteen questions/variables that capture the principles of patient experience for patients with diabetes.

The domains are:

- Access & waiting time;
- Respect & inclusive decisions;
- Management of diabetes;
- Emotional & psychological support.

Patient characteristics

Comparison of characteristics of target and sampled population

- The population and survey sample have similar age distributions.
- The population and survey sample have similar representation of diabetics from a scheme size perspective.
- Over- and under-sampling occurred for females below and above 55, respectively.
- All in all, the sample seems to have extrapolative properties.

Characteristics of survey respondents

- Based on what is known about the prevalence of diabetes among ethnic groups, the sample seems to introduce bias to the analysis. Race and ethnicity data should thus be collected for chronic conditions.
- 29% of the respondents are neither on a diet nor on an exercise programme. This does not augur well for taking personal responsibility for getting better.
- 57% of respondents use an open network to access care and 17% don't know. This isn't good for care coordination or for a patient-centred approach to improve health quality outcomes.

Patient experience scores

- Reliability can be placed on the patient experience scores, as margins of errors are low.
- The highest patient experience score is for respect and inclusive decisions.
- The overall score is 74.
- Psychological and emotional support pulls the overall score down.
- The psychological and emotional score is driven by knowing the patient and as individual, psychosocial factors, coordinated care and integrated family support. This suggest that out of network arrangements may be impeding on patient-centred care outcomes. On closer inspection, at the question level, the psychological dimension seems to suffer from a lack of integrated family support.
- The appears to be a positive correlation between patient satisfaction, patient experience and adherence. This will need to be tested for statistical significance.

6 FUTURE RESEARCH & ACTIVITIES

- i) Schedule meeting with Clinical and Accreditation Units
 - a) Determine priority chronic conditions
 - b) Clinical indicators for future survey tool
 - Clinical interventions and adherence
 - Clinical markers
 - Meta-analysis – CMS and/or HOA results
- ii) Link survey participants to Beneficiary Registry
- iii) Link survey entities to Supplier Registry
- iv) Compare experience weighted scores of service providers
- v) Disseminate findings to schemes
- xi) Make information available to supply-side regulators for P.P.P. network arrangements
- xii) Collaborate with Independent Service Provider or HOA
 - a) Tender & award provider to roll-out full survey of Disease Management Programmes
 - b) Create observatory of results in line HMI preliminary recommendations
- xiii) Engage very closely with stakeholders every step of the way
- xiv) Invite the Health Market Inquiry to patient experience workshops
- xv) Present patient experience results at industry indabas and at Principal Officer training.

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8 TECHNICAL NOTES

The table below reports the internal reliability of the survey tool for all survey questions, for both diabetes 1 and 2 patients. The Cronbach Alpha is above 0.93 for all survey questions. This means that the piloted survey tool has internal reliability.

Table 8: Cronbach Alphas for survey tool questions

Cronbach Coefficient Alpha with Deleted Variable				
Deleted Variable	Raw Variables		Standardized Variables	
	Correlation with Total	Alpha	Correlation with Total	Alpha
EasyAccess	0.605325	0.929932	0.600162	0.936383
WaitingTime	0.527436	0.931454	0.537248	0.937852
Respect	0.659004	0.928672	0.667697	0.934789
Inclusive	0.712485	0.927235	0.722954	0.933471
Explained	0.768818	0.926362	0.782596	0.932035
DiscussDiet	0.716187	0.926895	0.719417	0.933556
DiscussPhysic	0.681764	0.927756	0.683423	0.934415
DiscussManage	0.741688	0.926354	0.748338	0.932862
Knowprescr	0.698861	0.928059	0.710968	0.933758
WhoToCall	0.650924	0.928614	0.652439	0.935151
KnowResults	0.740170	0.926747	0.750340	0.932814
KnowCarePlan	0.468248	0.935652	0.455321	0.939741
Emotional Sup	0.770353	0.925435	0.769176	0.932360
Confident	0.795959	0.925005	0.796955	0.931687
ConsistMess	0.662895	0.928268	0.665594	0.934839
Information	0.569958	0.932135	0.554601	0.937448

Generated using SAS 9.4

Figure 39 below presents a logic model illustration of how CFA and EFA work. The figure (fig. 39) shows that each patient experience dimension, features as element in a system of equations. The dimensions include the patient experience questions identified in the survey development process. The intention of the model is to isolate common correlation by dropping redundant variables (questions). The system of equations starts with five factors. Factors and questions are dropped until common variation is isolated. Thus, ensuring independence between the underlying patient experience dimensions to the survey tool questions.

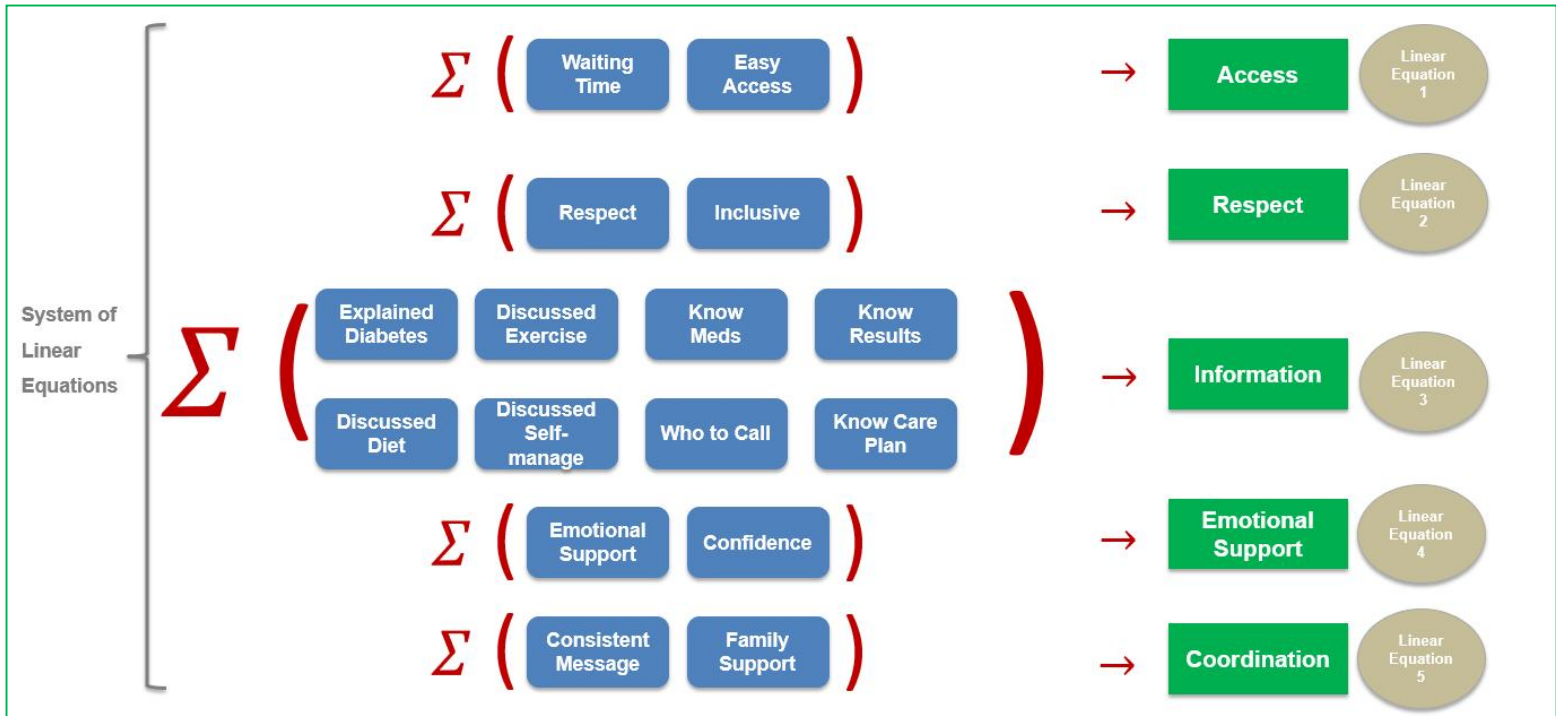


Figure 39: Model of how EFA technique works

The table 9 below reports the results of the Confirmatory analysis. The analysis failed to predict a suitable fit of the survey questionnaire theory. The reasons the CFA was abandoned were due to the following generally accepted cut-offs for statistical parameters:

- The Chi-square p-score was way below the required level of at least 0.05
- The RMSEA was way above the required minimum of 0.06
- The Bentler-Bonett fit was adequate, but not sufficient to make the fit suitable.

Table 9: Confirmatory analysis results

Modeling Info		
Number of Observations		4358
Number of Variables		16
Number of Moments		136
Number of Parameters		42
Number of Active Constraints		0
Baseline Model Function Value		10.5077
Baseline Model Chi-Square		45781.8798
Baseline Model Chi-Square DF		120
Pr > Baseline Model Chi-Square		<.0001

Parsimony Index	Adjusted GFI (AGFI)	0.8183
	Parsimonious GFI	0.6850
	RMSEA Estimate	0.1006
	RMSEA Lower 90% Confidence Limit	0.0980
	RMSEA Upper 90% Confidence Limit	0.1032
	Probability of Close Fit	<.0001
	ECVI Estimate	0.9914
	ECVI Lower 90% Confidence Limit	0.9433
	ECVI Upper 90% Confidence Limit	1.0412
	Akaike Information Criterion	4319.0647
	Bozdogan CAIC	4629.0150
	Schwarz Bayesian Criterion	4587.0150
	McDonald Centrality	0.6218

Incremental Index	Bentler Comparative Fit Index	0.9093
	Bentler-Bonett NFI	0.9075
	Bentler-Bonett Non-normed Index	0.8842
	Bollen Normed Index Rho1	0.8819
	Bollen Non-normed Index Delta2	0.9094
	James et al. Parsimonious NFI	0.7109

PATIENT EXPERIENCE SURVEY: 2017

Council for Medical Scheme is conducting a survey on the health care quality that medical schemes beneficiaries receive, from a patient experience perspective. Your Medical Scheme contracts with disease management program (Managed Care Organization) to monitor and to keep your healthcare condition under control. You have been identified as a respondent, on the bases that your medical scheme has registered you as a beneficiary with Diabetes Mellitus (I & II).

The purpose of this survey is to collect information from beneficiaries with an aim of informing health care quality improvement, in the interest of medical schemes beneficiaries. Your response is likely to be used to inform how your medical schemes engages with the Managed Care Organization (MCO) for your future well-being.

The types of questions you will be asked are related to your personal experience in engaging with your disease management program, doctor or nurse. The questionnaire will take approximately 10 to 15 minutes to complete.

* Required

Demographic Information and Level of Education

1. Gender *

Mark only one oval.

- Female
- Male
- Other: _____

2. Age Band *

Mark only one oval.

- Under 1
- 1-4
- 5-9
- 10-14
- 15-19
- 20-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60-64
- 65-69
- 70-74
- 75-79
- 80-84
- 85+

3. Province *

Mark only one oval.

- Eastern Cape
- Free State
- Gauteng
- KwaZulu-Natal
- Limpopo
- Mpumalanga
- North West
- Northern Cape
- Western Cape

4. Town / City *

Mark only one oval.

- Aankoms
- Aberdeen
- Acornhoek
- Addo
- Adelaide
- Afguns
- Aggeneys
- Albertinia
- Alberton
- Alexander Bay
- Alexandra
- Alexandria
- Alice
- Aliwal North
- Allanridge
- Alldays
- Amalia
- Amanzimtoti

5. Race *

Mark only one oval.

- Black
- Coloured
- Asian
- White
- Other: _____

6. Highest Level of Education *

Mark only one oval.

- No formal education
- Primary education
- Secondary Education
- Diploma / Bachelors Degree
- Post-Graduate

General

Select your Scheme or benefit option by typing the first letter of the scheme name in the following two questions.

7. What is the name of your medical scheme? *

Mark only one oval.

- AECI MEDICAL AID SOCIETY
- ALLIANCE-MIDMED MEDICAL SCHEME
- ANGLO MEDICAL SCHEME
- ANGLOVAAL GROUP MEDICAL SCHEME
- BANKMED
- BARLOWORLD MEDICAL SCHEME
- BESTMED MEDICAL SCHEME
- BMW EMPLOYEES MEDICAL AID SOCIETY
- BONITAS MEDICAL FUND
- BP MEDICAL AID SOCIETY
- BUILDING & CONSTRUCTION INDUSTRY MEDICAL AID FUND
- CAPE MEDICAL PLAN

8. What is your medical scheme's benefit option called? *

Mark only one oval.

- AECI - COMPREHENSIVE
- AECI - VALUE OPTION
- AFROX - BASE PLAN
- ALLIANCE - MIDMED MEDICAL SCHEME
- ALTRON - BASIC

9. How does your scheme's benefit option allow you to access doctors and/or nurses for your Diabetes Mellitus? *

Mark only one oval.

- Through selecting a doctor/and or nurse of my own choice (open network)
- Through a doctor/and or nurse chosen by the medical scheme (designated service provider (DSP))
- Not sure

10. How does your scheme's benefit option allow you access to medication for your Diabetes Mellitus? *

Mark only one oval.

- Through selecting and using a pharmacy of my own choice (open network)
- Through a pharmacy chosen by the medical scheme (DSP)
- Not sure

11. Have you been registered on your medical scheme's chronic disease program? *

Mark only one oval.

- Yes
- No
- Not Sure

12. How long ago were you first diagnosed with Diabetes Mellitus? *

Mark only one oval.

- Less than a year
- 1 to 5 years
- 6 to 10 years
- More than 10 years

13. Have you been diagnosed with another chronic condition, other than Diabetes Mellitus? *

Mark only one oval.

- Yes *Skip to question 14.*
- No *Skip to question 15.*

14. You answered yes in the question above, how many other chronic conditions, other than Diabetes Mellitus, have been diagnosed with? *

Mark only one oval.

- One
- Two
- Three
- Four or more

GENERAL

15. What Type of Diabetes Mellitus do you have? *

Mark only one oval.

- Type 1
- Type 2
- I am not sure / do not know

16. Are you on any of the following medication for Diabetes Mellitus? *

Check all that apply.

- Oral medication
- Injections
- Both oral medication and injection
- Insulin pump
- Neither on oral medication or injection or insulin pump

17. Are you on a lifestyle management programme which includes exercise and diet? *

Mark only one oval.

- Yes
- No

18. What does your lifestyle management programme include? *

Mark only one oval.

- Exercise
- Diet
- Both exercise and diet
- None of the above

19. Would you consider your diabetes status as controlled? *

Mark only one oval.

- Yes
- No
- Not sure

20. Do you own a glucometer? *

Mark only one oval.

- Yes
- No

ROUTINE CARE

Indicate the frequency of care you received i.r.o the below statements.

21. In the last 12 months: *

Mark only one oval per row.

	Once	Twice	More than twice	Never
How many times has the medical scheme, or diabetes management programme, contacted you with regards to your diabetes condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you visited your doctor for your diabetes condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you had your blood tested (HbA1c), or blood test sent to the lab to test your blood sugar levels?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times has your doctor or a nurse measured your weight and height; i.e. Body Mass Index (BMI)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you had a blood test taken to check your cholesterol level?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you had a blood test taken to check your kidney function?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you had a foot examination?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How many times have you had an eye screening examination done?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ACCESS, RESPECT OF NEEDS, INFORMATION, COMMUNICATION & EDUCATION

Please indicate your level of agreement/disagreement in the following statements.

22. In the last 12 months: *

Mark only one oval per row.

	I strongly agree	I agree	I neither agree or disagree	I disagree	I strongly disagree
It was easy to access services from my medical scheme, or diabetes management programme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When consulting my doctor for my Diabetes Mellitus, I did not have to wait long for my appointment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt I was treated with respect and dignity during my medical scheme calls, and/or doctor visits for my Diabetes Mellitus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was involved, as much as I wanted to be, in decisions about my care and treatment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The doctor or nurse explained matters concerning my Diabetes Mellitus, in a clear and understandable manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The doctor or nurse had a discussion with me regarding the food that I eat and any changes I could make to my diet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I discussed my levels of physical activity, and changes that I could make to my physical exercise plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During my last appointment, I discussed and agreed with my doctor, about how to manage Diabetes Mellitus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know why I am prescribed each of the medications for my blood glucose control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know who to call in emergency situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand the purpose, and meaning of the results, of each of the routine checks/tests for my Diabetes Mellitus.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was offered a written, printed or electronic copy of my care plan from my medical scheme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EMOTIONAL SUPPORT, ALLEVIATION OF FEAR AND ANXIETY & COORDINATION OF CARE

Please indicate your level of agreement/disagreement in the following statements.

23. In the last 12 months: *

Mark only one oval per row.

	I strongly agree	I agree	I neither agree nor disagree	I disagree	I strongly disagree
The emotional support received from my doctor, nurse or diabetes management programme, has helped to relieve my fear and/or anxieties associated with my diabetes condition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Due to the support received from my doctor, nurse or diabetes management programme, I am confident about managing my diabetes condition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not experience a situation where: a doctor or nurse will say one thing, and the other will say something quite different, regarding my Diabetes Mellitus condition (this includes electronic and telephonic communication)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The medical scheme and/or diabetes management programme provided my family with information to support me in coping with my diabetes condition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

OVERALL SATISFACTION

24. Overall, how would you rate the service that you received from your doctor, nurse or your diabetes management programme, using a scale of 1 to 10? Where 1 is the worst service possible and 10 the best service rendered. *

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Would you recommend the care nurse, doctor or diabetes management programme; who manages your condition, to someone else? *

Mark only one oval.

- Yes
 No