

The Attraction and Retention of Blood Donors in South Africa

Delene D Duncan

**A research report submitted to the Faculty of Commerce, Law and
Management, University of the Witwatersrand, in partial fulfilment of the
requirements for the degree of Master of Business Administration**

Johannesburg, 2010

ABSTRACT

In South Africa, the South African National Blood Service (SANBS) is the largest blood transfusion service and is responsible for the collection, processing and issuing of blood and blood products. In 1975 the World Health Organisation in the Safe Blood Policy recommended that all blood collections should be based on voluntary non-remunerated donations in order to ensure that the blood supply of the nation is as safe as possible (WHO 1975).

The purpose of this research is to understand the donation behaviour patterns of blood donors in South Africa. Behaviour patterns that could provide understanding of the motivators that enable blood donors to return to donate, the deterrents to blood donation in order to prevent donor loss, and ascertaining the factors that explain why donors stop donating blood.

244 Lapsed and Current donors were contacted telephonically and interviewed using a structured interview guide by the Egoli Telerecruiting Department from the lapsed donor base of the Westgate and Fairlands Donor Centres. The data was analysed using descriptive statistics.

The reasons why donors start donating is because donors are altruistic in behaviour and have a “giving” nature, and donors are influenced by family, friends and peers in the workplace and at school.

Donors continue to donate blood because of convenient venues, days and time are necessary to keep the donors donating as well as incentives in the form of gifts are important in encouraging donors to remain as donors.

Time constraints, medical deferrals and failure to remind the donor to donate are the key reasons for why donors do not return to donate blood.

The recommendations are based on the facts that donors want convenience in donor centre times, improved privacy during the pre-donation interview, donor education and telephonic reminders to ensure that donor retention is improved and thus ensure the sustainability of SANBS.

DECLARATION

I, Delene Debra Duncan, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Delene Debra Duncan

Signed at Johannesburg

On the 15th day of March 2010

DEDICATION

I dedicate this research report to the South African National Blood Service, a Service dedicated to making a difference in the lives of patients, donors and staff members.

Joining this organisation started my leadership journey through the opportunities afforded me throughout my career, through training and experience.

My career has grown with the changes that have taken place in this organisation.

Through my interactions with the people belonging to this organisation has fuelled my personal growth, one day leading to self-actualisation and remembrance as an influential leader of the Egoli Zone Team and ultimately as part of the SANBS team:

ACKNOWLEDGEMENTS

The first acknowledgement goes to the Chief Operational Officer, Mr Ravi Reddy, without whose support I would not have had the opportunity to complete my MBA, and who by example, has taught me true leadership skills.

The second acknowledgment is to the National Donor Services Manager, Mr Mike Loubser, who by example has taught me the art of leadership.

I also acknowledge my wonderful daughters, Sephra and Megan Duncan, who put up with my days and nights away in body and soul in order to complete my MBA.

I would like to thank my Secretary, Yolanda Horn, who assisted me in setting up the focus groups, a task that took a lot of dedication.

I would like to acknowledge my supervisor, Professor Geoff Bick whose guidance has been invaluable in completing this research report.

I would like to thank the Egoli Zone Telerecruiting department who assisted me in gathering the data by contacting the donors to ask them all personal questions and putting up with the responses:

Daphne Cox	Sharon Mthombothi
Dwight Crowie	Lynette Naude
Merle Herbst	Salomina Oelofse
Vanessa Hlatshwayo	Priyanka Pillay
Natasha Koen	Melinda Samuels
Memory Khumbe	Ashley Saptoe
Ntefo Lekotlopo	Petronella Schaper
Gurschzon Lewis	Khulekani Sithole
Mpumalani Malimagovha	Sharon Wentzel
Nolwazi Mbele	Llewmarqueo Muller
Kitewe Mokotedi	Eugenia Ramaboea

TABLE OF CONTENTS

ABSTRACT.....	II
DECLARATION	III
DEDICATION	IV
ACKNOWLEDGEMENTS.....	V
LIST OF TABLES	IX
LIST OF DIAGRAMS.....	XI
 1. CHAPTER 1: INTRODUCTION	 1
1.1 PURPOSE OF THE STUDY	1
1.2 CONTEXT OF THE STUDY.....	1
1.3 PROBLEM STATEMENT	3
1.3.1 MAIN PROBLEM	3
1.3.2 SUB-PROBLEMS.....	3
1.4 SIGNIFICANCE OF THE STUDY	4
1.5 DELIMITATIONS OF THE STUDY.....	4
1.6 DEFINITION OF TERMS	5
1.7 ASSUMPTIONS	6
 2 CHAPTER 2: LITERATURE REVIEW.....	 7
2.1 INTRODUCTION	7
2.2 WHAT DETERMINES WHY DONORS RETURN TO DONATE BLOOD?	8
2.2.1 “GIFT OF LIFE” ALTRUISM	8
2.2.2 DONOR INCENTIVES.....	9
2.2.1 RESEARCH QUESTION 1: WHAT DETERMINES WHY DONORS START TO DONATE BLOOD?	10
2.3 WHAT DETERS DONORS FROM DONATING BLOOD?	10
2.3.1 CONVENIENCE	10
2.3.2 HEALTH PROBLEMS	10
2.3.3 TEMPORARY DEFERRALS	11
2.3.4 RECRUITMENT PROGRAMS.....	11
2.3.5 RESEARCH QUESTION 2: WHAT DETERMINES DONOR FREQUENCY?	11
2.4 WHY DO DONORS STOP DONATING BLOOD?	12
2.4.1 SO WHERE HAVE THE DONORS GONE?	12
2.4.2 BLOOD DONATION AS A WORTHY AND IMPORTANT VOLUNTEER ACTIVITY.....	13
2.4.3 RESEARCH QUESTION 3: WHAT DETERS DONORS FROM DONATING BLOOD?	13
2.5 CONCLUSION OF LITERATURE REVIEW	13

BLOOD?	2.5.1	RESEARCH QUESTION 1: WHAT DETERMINES WHY DONORS START TO DONATE	14
	2.5.2	RESEARCH QUESTION 2: WHAT DETERMINES DONOR FREQUENCY?	14
	2.5.3	RESEARCH QUESTION 3: WHAT DETERS DONORS FROM DONATING BLOOD?	14

3 CHAPTER 3: RESEARCH METHODOLOGY 15

3.1	RESEARCH METHODOLOGY / PARADIGM	15
3.2	QUALITATIVE FOCUS GROUP STUDY.....	15
3.2.1	RESEARCH DESIGN	15
3.2.2	POPULATION AND SAMPLE	16
3.2.3	THE RESEARCH INSTRUMENT	17
3.2.4	PROCEDURE FOR DATA COLLECTION.....	17
3.2.5	DATA ANALYSIS AND INTERPRETATION	18
3.2.6	LIMITATIONS OF THE FOCUS STUDY	18
3.2.7	VALIDITY AND RELIABILITY.....	19
3.3	QUANTITATIVE TELEPHONIC SURVEY.....	21
3.3.1	RESEARCH DESIGN	21
3.3.2	POPULATION AND SAMPLE	21
3.3.3	THE RESEARCH INSTRUMENT	22
3.3.4	PROCEDURE FOR DATA COLLECTION.....	23
3.3.5	DATA ANALYSIS AND INTERPRETATION	24
3.3.6	LIMITATIONS OF THE STUDY	24
3.3.7	VALIDITY AND RELIABILITY.....	25

4 CHAPTER 4: PRESENTATION OF RESULTS..... 27

4.1	QUALITATIVE FOCUS GROUP STUDY.....	27
4.1.1	DEMOGRAPHIC PROFILE OF PARTICIPANTS OF FOCUS GROUP.....	27
4.1.2	RESULTS PERTAINING TO RESEARCH QUESTION 1: WHAT DETERMINES WHY	
DONORS START TO DONATE BLOOD.....		28
4.1.3	RESULTS PERTAINING TO RESEARCH QUESTION 2: WHAT DETERMINES DONOR	
FREQUENCY	29	
4.1.4	RESULTS PERTAINING TO RESEARCH QUESTION 3: WHAT DETERS DONOR FROM	
DONATING BLOOD	30	
4.1.5	SUMMARY OF THE RESULTS	30
4.2	QUANTITATIVE TELEPHONIC SURVEY.....	31
4.2.1	DEMOGRAPHICS OF DONOR SAMPLE GROUP.....	32
4.2.2	RESULTS PERTAINING TO RESEARCH QUESTION 1: WHAT DETERMINES WHY	
DONORS START TO DONATE BLOOD.....		39
4.2.3	RESULTS PERTAINING TO RESEARCH QUESTION 2: WHAT DETERMINES DONOR	
FREQUENCY	43	
4.2.4	RESULTS PERTAINING TO RESEARCH QUESTION 3: WHAT DETERS DONOR FROM	
DONATING BLOOD	54	
4.2.5	SUMMARY OF THE RESULTS	56

5 CHAPTER 5: DISCUSSION OF THE RESULTS 64

5.1	INTRODUCTION	64
5.2	DEMOGRAPHIC PROFILE OF RESPONDENTS	64
5.2.1	DEMOGRAPHICS OF FOCUS GROUP.....	64
5.2.2	DEMOGRAPHICS OF DONOR SAMPLE	65
5.3	DISCUSSION PERTAINING TO RESEARCH QUESTION 1: WHAT DETERMINES WHY	
DONORS START TO DONATE BLOOD.....		68

5.4	DISCUSSION PERTAINING TO RESEARCH QUESTION 2: WHAT DETERMINES DONOR FREQUENCY	70
5.4.1	LEVEL OF SATISFACTION	70
5.4.2	DEFERRALS	71
5.4.3	IMPORTANCE OF INCENTIVES	72
5.4.4	ACCESSIBILITY OF VENUES	74
5.5	DISCUSSION PERTAINING TO RESEARCH QUESTION 3: WHAT DETERS DONOR FROM DONATING BLOOD.....	74
5.6	CONCLUSION.....	75
6	CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS	76
6.1	INTRODUCTION	76
6.2	RESPONSES TO RESEARCH QUESTIONS	76
6.1.1	RESEARCH QUESTION 1: WHAT DETERMINES WHY DONORS START TO DONATE BLOOD?	77
6.1.2	RESEARCH QUESTION 2: WHAT DETERMINES DONOR FREQUENCY?	77
6.1.3	RESEARCH QUESTION 3: WHAT DETERS DONORS FROM DONATING BLOOD?	77
6.3	RECOMMENDATIONS	77
6.4	SUGGESTIONS FOR FURTHER RESEARCH	79
	REFERENCES.....	81
	APPENDIX A	84
	SURVEY QUESTIONNAIRE	84
	INTERVIEW GUIDE.....	86
	SURVEY QUESTIONNAIRE FOR “THE CRITICAL SUCCESS FACTORS FOR THE RETENTION OF BLOOD DONORS IN SOUTH AFRICA”	87

LIST OF TABLES

Table 1: Profile of Participants in Focus Group.....	17
Table 2: Profile of Respondents to the Telephonic Survey	22
Table 3: Demographics of Focus Group	27
Table 4: Demographics of Donor Sample Group	32
Table 5: Sociodemographic of Donor Sample Group.....	33
Table 6: Sociodemographic of Donor Sample Group.....	35
Table 7: Age Categories of Donor Sample.....	36
Table 8: Distribution of Number of Donations per Status	38
Table 9: Personal Transfusion Experience	39
Table 10: Perceived Need for Blood	40
Table 11: Altruistic Behaviour.....	41
Table 12: Motivators to Donate Blood	42
Table 13: Satisfaction with Last Donation	43
Table 14: Rating of Overall Experience.....	48
Table 15: Deferrals.....	49
Table 16: Receipt of Gifts.....	50
Table 17: Importance of Incentives	51
Table 18: Ease of Access to Donor Centres	53
Table 19: Deterrents to Blood Donation	54

Table 20: Encouragement Required	55
Table 21: SANBS Donor Population versus South African Population.....	57
Table 22: SANBS Current Donor Population versus South African Population.	57
Table 23: SANBS Lapsed Donor Population.....	58
Table 24: Profile of Prospective Respondents	65
Table 25: Profile of Actual Respondents	65
Table 26: Ethnic Profile of Donor Centres sampled	66

LIST OF DIAGRAMS

Diagram 1: Age Range of donor sample by Gender and Status	38
Diagram 2: Distribution of Number of Donations per Status.....	39
Diagram 3: Treatment by Donor Centre staff	44
Diagram 4: Rating of Skill of Donor Centre staff.....	45
Diagram 5: Rating of Donor Experience during and after donation.....	46
Diagram 6: Rating of Level of Privacy at Donor Centre.....	47
Diagram 7: Duration of Donation process	48
Diagram 8: Importance of Incentives to Donors who did not receive a Gift.....	50
Diagram 9: Importance of Incentives to Donors who did receive a Gift.....	51

1. CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of this research is to understand the consumer behaviour of blood donors, behaviour patterns that could provide an understanding of the motivators that enable blood donors to return to donate.

Donors continuously make choices regarding products using a search or an experimental procedure to obtain information available about the products they are interested in. Consumers prefer to obtain the information by way of experience rather than searching for the information (Nelson 1970). Consumers also use product symbolism to define themselves in terms of the product acquired or used or in terms of the meanings the product may have for them or their attitudes towards products (Sirgy 1982). In recent studies consumption has been seen to involve a flow of fantasies, feelings and fun in the experimental process. This experimental perspective is spiritual and consumption can be viewed as a “primarily subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and aesthetic criteria” (Holbrook and Hirschman 1982).

1.2 Context of the study

In South Africa, the South African National Blood Service (SANBS) is the largest blood transfusion service and is responsible for the collection, processing and issuing of blood and blood products. In 1975 the World Health Organisation (WHO) in the Safe Blood Policy recommended that all blood collections should be based on voluntary non-remunerated donations in order to ensure that the blood supply of the nation is as safe as possible, especially where there is a high prevalence of human immunodeficiency virus (HIV) (WHO 1975). There is a fine balance between the blood supply and the demand for blood and blood products. A sufficient supply of blood and blood products is dependant on the achievement of two goals, the blood collections must exceed the demand, and all blood groups must be present in safe, sufficient quantities

at all times (Newman 2004).

Every year thousands of patients receive blood and blood products as a result of accidents, emergency surgeries, routine surgeries, and the treatment of serious diseases such as heart disease, anaemia and cancer (Mathew, King, Glynn, Dietz, Caswell and Schreiber 2007). Advancements in medical technology, an aging population that increases the utilisation of medical procedures, and the human immunodeficiency virus (HIV) / acquired immune deficiency syndrome (AIDS) crisis has increased the blood utilisation rate (Simon 2003). The HIV/AIDS crisis has contributed to the increased demand for blood and blood products as a direct result of the anaemia caused by the anti-retro viral medications given to AIDS patients.

Furthermore increased deferral rates that have occurred since 1983 due to new tests, new self-exclusion questions and new donor exclusions that were introduced to ensure the safety of the blood supply, as a direct result of the HIV/AIDS crises (Simon 2003), and in 2001 new questions regarding Creutzfeldt-Jakob disease (Mathew et al. 2007) have further decreased donor eligibility.

In 2001 in the aftermath of the September 11th tragedy in the United States of America (USA), almost 500,000 units of blood were collected nationwide. When the supply exceeded the demand, the excess blood expired and was destroyed, resulting in unfortunate bad publicity (Mathew et al. 2007). Similarly in 2004 in South Africa the bad publicity regarding the risk profile based on donor ethnicity and the inadequate transportation of blood and blood products which resulted in the wastage of blood and blood products left the general public with a negative impression towards the blood transfusion services. Thus the general public does not realise that there is a steady need for blood and blood products on a daily basis and that the balance between supply and demand is fragile. Should the demand exceed supply the balance is upset and leads to severe shortages whereby routine surgeries and medical procedures are cancelled (Mathew et al. 2007).

Blood from all blood groups is required to meet patient needs; however there is

an increased demand for Group O blood which is known as the universal blood donor because blood from a group O donor can be given to a patient of any other blood group. Group O blood is also used for major emergencies whereby there is not enough time to complete the patient's blood group and issue serum compatible blood groups. Group O blood is also used as emergency blood in the rural and small hospitals for emergencies and is also used in maternity hospitals, kept in emergency fridges for obstetrical emergencies and neonatal intensive care units (Simon 2003).

In the USA only 5% of US citizens donate blood despite a 60% eligibility rate, only 8% of new donors convert to repeat donors and 62% never return to donate blood again (Schreiber, Schlumpf, Glynn, Wright, Tu, King et al. 2006).

The management of the blood donor base and the gap in the transfusion services knowledge can be described as the lack of knowledge of the factors of what makes donors start donating blood, what deters donors from donating and why do blood donors stop donating blood. The reasons need to be investigated in order to resolve these issues and ensure a higher rate of donor return and an increased donor donation frequency through commitment to the cause.

1.3 Problem statement

1.3.1 *Main problem*

The main problem is to identify the determinants of blood donor behaviour in order to improve donor retention and donation frequency, to explore the deterrents to blood donation in order to prevent donor loss, and ascertain the factors that explain why donors stop donating blood.

1.3.2 *Sub-problems*

The first sub-problem is to identify the determinants of donor return in order to predict future blood donation behaviour and improve donor retention as in improved donor / donation frequency;

The second sub-problem is to explore the deterrents to blood donation in order

to prevent donor loss or a decrease in donor donation frequency; and

The third sub-problem is to ascertain the factors that explain why donors stop donating blood.

1.4 Significance of the study

The study fills a gap in that there has been little published research in South Africa that identifies the determinants for donor return, the deterrents to blood donation and the factors explaining why donor stop donating blood. In SANBS there has been no published documentation in this field of study, only minor localised surveys such as the presentation completed by Isaac Mafisa in 2007 in the local rural areas of Kroonstad and Klerksdorp. This study focused on the Gauteng urban area of SANBS in order to determine the behaviour of the urbanised blood donor.

This study provides guidance to the Corporate Marketing Division by identifying the determinants of donor return and thus increased benefit in rand spend in donor recruitment strategies. Recruitment strategies are generally based on traditional strategies, personal preference and anecdotal reports but very seldom on a scientific basis, thus this study provides a scientific guide on what determines why donors return and thus improved recruitment strategies (Reich, Roberts, Laabs, Chinn, McEvoy, Hirschler et al. 2006).

The study also provides guidance to the Donor Services Divisions by identifying the deterrents to blood donations and the factors that influence donors to stop donating by increasing the understanding of the barriers to donor retention. Understanding the barriers to donation benefits the decision makers of the retention and operational strategies (Schreiber et al. 2006) and thus ensures a sufficient safe blood supply for the transfusion service as required in the SANBS mission statement.

1.5 Delimitations of the study

The research was based on the blood donor population as contained in the

SANBS data base as opposed to the general public population.

The research is limited to SANBS, the Egoli Zone and specifically the two donor centres of Fairlands and Westgate.

The research excludes the Western Province Blood Transfusion Service (WPBTS) donor data base.

The study excludes non-donors namely members of the public who have never donated blood or attempted to donate blood (Schreiber, Sanchez, Glynn and Wright 2003). All potential donors who attempt to donate but are temporarily or permanently deferred are captured on the SANBS donor base.

The study also excludes patients who have donated autologous products i.e. blood for themselves, and donors who have donated designated products i.e. blood donated for a specific patient.

This study also excludes donors or patients who donate blood on a frequent basis for medical reasons as this blood is not considered suitable for patient use and is destroyed.

1.6 Definition of terms

- ◆ First-time donors are donors have donated blood for the first-time;
- ◆ Current donors have donated blood within the preceding 12 months of the survey;
- ◆ Repeat donors are donors who have donated more than one donation of blood;
- ◆ Lapsed donors are donors have not donated in the 12 months prior to the survey (Germain, Glynn, Schreiber, Gelinis, King, Jones et al. 2007);
- ◆ Deferral is a process whereby for either the safety of the patient or the safety of the donor, a person is prevented from donating blood either for a fixed period of time or permanently (Schreiber et al. 2003).

1.7 Assumptions

- The respondents to the surveys were be able to understand the questions and were able to communicate answers to the questions because all blood donors must be literate in English or Afrikaans in order to complete the donor form, which all donors must complete in order to be eligible to donate. However, the Telerecruiters were able to ask and answer questions in the main ethnic languages as the need arose otherwise there could have been a lack of understanding and thus the wrong answers to questions could have been given.
- The respondents were willing to answer all the questions, otherwise if not the survey would not have been able to yield the answers to the questions and thus not provide solutions to the problems.

2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Successful blood donor retention programs are important in ensuring that there is a sufficient blood supply to meet the increasing demand for blood and blood products (Schlumpf, Glynn, Schreiber, Wright, Randolph Steele, Tu et al. 2008). Repeat donors have lower rates of blood transmissible disease markers and thus the safety of the blood supply depends on regular donations from blood donors (Germain et al. 2007), thus understanding and identifying the factors why donors repeat donations is important in building an adequate donor base (Schlumpf et al. 2008).

Identifying the barriers to blood donation that may prevent donors from returning to donate may be the same factors that may prevent the general public from becoming donors and thus identifying these factors which may be able to be addressed by the transfusion service in order to improve the blood supply by increasing collections (Schreiber et al. 2006).

Understanding the factors that prevent first-time donors from returning to donate blood or what influences these donors and repeat donors to stop donating is also important to identify in order to improve retention strategies and thus the ability to convert a lapsed or first-time donor into a repeat donor would improve collections and thus provide a sufficient and blood supply (Mathew et al. 2007).

Due to the specialised field of blood donation, it must be acknowledged that there has been very little prior research conducted on the behaviour patterns of blood donors.

The following topics were reviewed from the literature:

- ◆ What determines why donors start to donate blood?
- ◆ What deters donors from donating blood?
- ◆ Why do donors stop donating blood?

2.2 What determines why donors return to donate blood?

A study of the factors that motivate blood donation in Greece was undertaken via a questionnaire distributed to all blood donors completing the blood donation process and to randomly selected visitors to a hospital's patients. Greece has a continuous shortage of blood and blood products due to the large numbers of thalassaemia and sickle cell anaemia patients. These are blood dyscrasias peculiar to the Mediterranean genetic pool (Marantidou, Loukopoulou, Zervou, Matinis, Egglezou, Fountouli et al. 2007). Two further studies were undertaken in Canada and the USA, also via random questionnaires which were mailed to blood donors, in order to ascertain the determinants of donor return behaviour (Glynn, Williams, Nass, Bethel, Kessler, Scott et al. 2003; Germain et al. 2007). The reasons are discussed under the following headings:

2.2.1 “Gift of Life” Altruism

In Greece the results of the study showed that 77.3% of donors started donating replacement blood for a friend or relative, 20.2% of donors started voluntarily and 2.5% donors donated to earn paid leave. In Greece there are two systems of blood donors: replacement donors for blood used by friends and family and voluntary donors who start donating because blood donation is a “gift of life” (Mathew et al. 2007) to fellow human beings (Marantidou et al. 2007).

In Canada the donors responded by listing the following factors as important motivational reasons for continued blood donation: an altruistic attitude, a positive personal experience with the transfusion service, the perceived need for blood and ease of access to the blood centre (Germain et al. 2007).

In the USA where the term “gift of life” was coined, altruism, appeals for blood and social pressure from friends and family appear to be the key decision makers in donating blood (Glynn et al. 2003).

Altruism is an important motivation for voluntary non-remunerated blood donations and can be characterised by a sense of obligation, approval and interest, awareness of the need and the purpose of the gift of blood (Misje,

Bosnes, Gasdal and Heier 2005).

Thus the call to donate blood depends on the system of blood donation particular to the various countries; however it would appear that altruism and the perceived need for blood are the most important factors that starts people donating blood.

2.2.2 Donor Incentives

In Greece 2.5% of donors admitted donating in order to earn paid leave from work and to receive free blood testing and 76.5% of blood donors stated that incentives to donate blood should exist. The donors suggested that these incentives should consist of future blood availability for themselves and their family, paid leave from work and free health tests such as cholesterol testing. Awards and small gifts with the blood transfusion service's logo on the gift tended to have a small impact and did not influence the donors to continue donating blood (Marantidou et al. 2007).

In Canada incentives have some value in recruiting new donors but did not have any value to the donor in maintaining a long term relationship with the blood transfusion service. This relationship was maintained by the awareness that blood is needed and thus altruism is reported as the most important reason for donating blood (Germain et al. 2007).

In the USA in a survey regarding donor incentives, incentives were classified into four categories: miscellaneous including medical-screening tests, compensation-payment incentives such as cash payments to the donor or charity of choice, service logo gifts such as T-shirts or coffee mugs, and "tokens of appreciation" such as recognition awards and certificates. Most American donors reported that they would be encouraged to return to donate if offered medical-screening tests (61% of respondents to survey) or blood credits to payment should the donor or family of the donor require blood or blood products (61%). Few donors appreciated the "tokens of appreciation" (Glynn et al. 2003).

Where altruism and the perceived need for blood are the main motivational causes for donating blood, incentives do not appear to be the main reason people

start donating blood, however it appears that donors do enjoy receiving gifts on the occasion as this makes them feel that their contribution is valued.

2.2.1 Research Question 1: What determines why donors start to donate blood?

The factors such as the “gift of life” and donor incentives determine the donor return rate in South Africa and how important are donor incentives.

2.3 What deters donors from donating blood?

The literature reviewed revealed several reasons that deter donors from donating blood and these reasons are discussed under the following headings:

2.3.1 Convenience

In the USA, convenience was rated as the most important factor as a deterrent to blood donors, donors stating that there was no convenient place or the blood drive times were inconvenient for the donor to donate (Schreiber et al. 2006) (Marantidou et al. 2007). The transfusion service employees were also cited as having poor skills especially phlebotomy skills resulting in a poor and painful experience, and poor people skills in that the donors were treated badly. Donors also complained about the lengthy process (Schreiber et al. 2006) and this was confirmed in the Grecian study where donors also displayed dissatisfaction with the waiting time (48.7% of donors and the unpleasantness of the physical environment (32.2% of donors) (Marantidou et al. 2007).

18.1% of voluntary donors in Greece reported that the one of the reasons for the lack of return was time constraints. Other factors noted was that the distance to the location of the blood donor centre (Marantidou et al. 2007), lack of transportation, required time commitment and resultant time away from work if the donation site is away from the workplace (Schreiber et al. 2006).

2.3.2 Health Problems

In the Grecian study blood donation was regarded as a risky process in that the general public thought that blood donors could become infected with blood

transmissible diseases such as HIV. The first-time donors also feared becoming anaemic, feeling weak or dizzy and feared the results of the blood tests conducted on the blood. Women tended to donate less blood because of medical reasons due to lower body weight, susceptibility to anaemia due to loss of iron, especially during the child-bearing years (Marantidou et al. 2007).

In the USA donors also complained of feeling sick during or after donating blood, feeling dizzy and having deep set or difficult veins resulting in a painful experience. Donors also complained of been afraid of the needle despite attempting to donate and the dislike of the sight of blood (Schreiber et al. 2006).

Health problems and fear seem to be a deterrent for some donors and prevents them from becoming regular repeat donors.

2.3.3 Temporary deferrals

The lack of appropriate information when donors were temporarily deferred for various reasons such as low iron levels or elevated blood pressure could result in donors not returning at the correct date. The lack of proper and personalised support by the transfusion service staff (Marantidou et al. 2007) especially towards first-time donors during the deferral period was also cited as reason for not returning on time to donate blood (Schreiber et al. 2006).

2.3.4 Recruitment programs

In Greece 16.5% of the voluntary donors reported that they had not been reminded to donate raising the question of appropriate recruitment strategies (Marantidou et al. 2007).

2.3.5 Research Question 2: What determines donor frequency?

What are the factors that deter blood donors from donating in South Africa? Does SANBS need to relook at its recruitment strategies to ensure effective communication with donors through a wider use of the available media tools such as television, advertisements, and community newspapers, and available electronic media such as telephonic calls, short messaging service (SMS) and

emails, and does SANBS need to reassess the convenience of the fixed donor centres and mobile blood drives (Marantidou et al. 2007) in order to prevent donor loss and improve donor retention (Schreiber et al. 2006).

2.4 Why do donors stop donating blood?

In a study conducted in 2003 indicates that various factors since the advent of the HIV/AIDS crises in the 1980's has created situations deterring donors from donating and causing donors to stopped donating (Simon 2003). Factors such as the non-recruitment of Group A and Group AB donors because of the increase utilisation of Group O blood for emergencies, seasonality during school holidays when most companies and factories close for the holidays, increased restrictions on blood donors by increasing the length and personal intrusiveness of the donor questionnaire in order to identify lifestyles that may pose a risk to the blood supply of the USA, the impact of the new blood testing for blood transmissible diseases such as HIV and hepatitis has increased the number of false-positive tests that deferred a whole group of donors without the presence of any transmissible diseases, the increased regulations taking the focus of the transfusion staff away from the donor and onto following regulations, and the entrance of market forces due to the increased costs of testing focusing the attention of the transfusion services on lowering costs.

2.4.1 *So where have the donors gone?*

Donors have been discouraged from donating by the lack of customer service and lack of appreciation and recognition due to the increased regulation removing the focus from the donor to standard operating procedures and following regulations, and increased focus on lowering costs. Donors have been deferred by a false-positive test result without appropriate information or have been temporarily deferred and not encouraged to return by a certain date. Donors have also been deferred for lifestyle patterns of behaviour such as tattooing and body piercing that have discouraged the donor from donating permanently. Female Donors have also become anaemic due to the lack of appropriate education and male donors have also become anaemic through intensive recruitment, encouraged to donate excessively in order to maintain the

supply of blood. Donors have also stopped donating because of inconvenient donor centres or inconvenient times of operations (Simon 2003).

2.4.2 Blood donation as a worthy and important volunteer activity

Donors who stopped donating because the experience of donating blood was felt to be impersonal and not as satisfying as other volunteer activities where a personal relationship could be developed with the recipient. Most lapsed donors had not been asked to donate nor had the donor seen or heard any appeals for blood and thus expressed scepticism regarding the shortage of blood. Thus most lapsed donors did not view blood donation as an important worthy volunteer activity, in fact some stated that donating blood was the “easy way out” (Mathew et al. 2007). Donors who have given once and then do not return may also have been motivated by a high profile radio or television campaign, a situation that is not duplicated at every blood drive (Sargeant 2001).

2.4.3 Research Question 3: What deters donors from donating blood?

Why do donors stop donating in South Africa? The reasons need to be identified in order to reassess SANBS's education and media strategies for example by “putting a face on it” the face of the recipient in order for the donor become aware of need for blood donation (Mathew et al. 2007).

2.5 Conclusion of Literature Review

In summary there appears to be many and varied reasons, similar in the countries reviewed why donors return to donate blood, altruism been the most important reason. Why do donors continue to donate, convenience of site and time seems to be the most important reason, and incentives also seem to play an important role as well.

What deters blood donors from donating blood appears to be the inconvenience of the venue and the times of the blood drives, and the lack of a positive

experience at the transfusion centre. These factors seem to be the most important deterrents to blood donors as well as poor customer service and a lack of phlebotomy skills and competence by the transfusion service staff members.

Blood donors stop donating blood when the awareness for the need and shortage of blood is not emphasised. When new regulations, new testing techniques and new deferral reasons are implemented there is also a loss of donors regarded as collateral loss.

2.5.1 *Research Question 1: What determines why donors start to donate blood?*

2.5.2 *Research Question 2: What determines donor frequency?*

2.5.3 *Research Question 3: What deters donors from donating blood?*

3 CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research methodology / paradigm

The research method used was a quantitative and qualitative analysis of the responses received by the blood donors.

A quantitative approach to research is one whereby the researcher uses instruments such as surveys and experiments to collect data that yields statistical or numerical data (Creswell 2003).

A qualitative approach to research is one whereby the researcher used instruments such as open-ended or closed questionnaires or case studies to collect text information data that yields themes of perspectives (Creswell 2003).

This study used a mixed approach in that a focus group was held to determine what are the questions to be surveyed, then the demographic data was collected and compared to test the association of the various sociodemographic data, and responses to various closed and open questions was collected in a telephonic interview in order to elicit the views of the blood donors.

The quantitative data was used to understand the associations between the donor demographics, whilst the qualitative data was used to understand determinants of donor return behaviour, the deterrents to blood donation and why donors do not return to donate blood.

The data collected was compared in order to establish the critical success factors to the retention of blood donors in South Africa and so enable SANBS to establish effective and efficient recruitment and retention strategies.

3.2 Qualitative Focus Group Study

3.2.1 *Research Design*

The methodological approach undertaken was a focus group survey of current, lapsed and new blood donors.

The advantage of this method of research was the physical presence of the blood donors and thus body language was visible.

The disadvantage of this method was the inability to interview a large sample of blood donors. Another advantage of this method was the time constraints as asking questions in an informal environment proved to be time consuming and could also have led to the donors not been completely honest regarding their answers to the questions.

3.2.2 Population and sample

a. Population

Since 1993 all information regarding SANBS blood donors and the donor's donation history is contained in the computerised Meditech® database. The database includes all personal information such as date of birth, gender, residential and postal address, contact details, types of donations, frequency of donations, previous and current deferrals and all blood test results.

b. Sample and sampling method

This study used a randomly invited sample of blood donors from the Egoli Zone donor base from two donor centres, namely Fairlands and Westgate.

The donor data was extracted from the Meditech® database and imported into an Excel® spreadsheet for the purpose of defining the sample population, selecting the study subjects, namely the blood donors, and analysis of the demographic information.

Table 1: Profile of Participants in Focus Group

Sample Profile = 7			
Donor No	Status	Number of Donations	Blood Group
D1	Current	35	Group O
D2	Current	34	Group AB
D3	Lapsed	100	Group O
D4	Lapsed	15	Group A
D5	Lapsed	5	Group A
D6	New	1	Group O
D7	Current	33	Group O

3.2.3 The research instrument

The research instrument with regards to the focus group was a series of in-depth questions that explored why the general public start donating, what prevented the general public from donating and what kept donors donating.

The research instrument developed from the focus group was a combination of demographic information, open –ended questions and closed questions.

Each section addressed an aspect of why donors continue to donate, what deters donors from donating and why do donors stop donating.

3.2.4 Procedure for data collection

The sampling for the focus group was a random selection of blood donors from the two donor centres, which was able to attend a group meeting.

The sampling was done with those blood donors who had cellphone's or landlines, aged 16 years and older, and mentally competent to answer the questions asked, donors who had been marked as temporary or permanently deferred were not be contacted. Donors who were selected to attend the focus

group were contacted by the Zone Secretary and invited to attend the focus group.

Donors were asked a series of questions regarding blood donation, why did they start donating, what kept them donating and what would stop them from donating. The issues were discussed in depth in order to explore all reasons and emotions and feelings were also explored.

3.2.5 *Data analysis and interpretation*

The qualitative answers were examined and from these answers the telephonic survey was compared to previous studies where the questions had been used before in several literature reviews and similar results and conclusions have been drawn in the various studies (Schreiber et al. 2006; Harrington, Sweeney, Bailie, Morris, Kennedy, Boilson et al. 2007; Marantidou et al. 2007; Mathew et al. 2007; Schlumpf et al. 2008).

3.2.6 *Limitations of the focus study*

Donors were reluctant to attend the focus group without receiving some form of payment as the survey took time from the donors' busy schedules so it was difficult to ensure a large sample of donors.

No Black, Asian or Coloured donors attended the focus group despite been invited thus limiting the answers to the perceptions of white donors.

Donors agreed to attend the focus group but did not arrive so that there was not an equal distribution of new, current and lapsed donors in which to fully explore the reasons for why donors start donating continue donating and stop donating. Quoting Holden Caulfield in JD Salinger's 'Catcher in the Rye' 'A lot of people keep asking me if I'm going to apply myself when I go back to school next September. It's such a stupid question, in my opinion. I mean how do you know what you're going to do 'til you do it?' Thus this study's limitation was based on what donor's say they will do but not necessarily what they will actually do when the call to donate comes (Jones, Prasad, Kuruvatti, Tahir,

Whitaker, Dawson et al. 2003).

First-time lapsed donors have not returned to donate because these donors may be resident in the regions outside of the Meditech® database region; SANBS has two computerised data systems, Progesa® (Mak Systems) in the coastal regions and Meditech® in the inland regions. Thus the donor classified as a first-time lapsed donor on the Egoli Zone donor base may actually be a repeat current donor in another donor centre (Schreiber et al. 2003).

Lapsed donors who have not donated in the previous 12 months may not be contactable due to various reasons. The implication here is that not enough statistical data was collected in order to find out why donors stop donating blood.

A further limitation of the study was that the analysis of the current repeat donors was from the year 2008 to 2009 whilst the analysis of the lapsed donors was from the year 2006 to 2008 and the results of the study could reflect the characteristics of events that have taken place in the country or the transfusion service during those time frames (Schreiber et al. 2003).

3.2.7 *Validity and reliability*

Research is considered reliable if similar conclusions are found in repeated applications of the research survey using similar population samples. If research instruments are reliable then there is a small sample error (Kalof, Dan and Dietz 2008).

Validity is essential to ensure congruence or 'goodness of fit' (Kalof et al. 2008) of the research instrument to ensure that the instrument measures what it is supposed to measure and whether the conclusions can be extrapolated to a larger population, and to ensure consistency between the details of the survey, the responses to the questions and the conclusions determined by the researcher.

a. ***External validity***

External validity refers to the ability to take the survey findings and to generalise the findings to a larger population (Kalof et al. 2008).

This study might not meet the external validity criteria because not all South Africans are eligible to donate blood because of the higher HIV/AIDS prevalence in certain ethnic groups and thus the conclusions drawn might not be able to be used to generalise to the larger general public population. However, the study might meet the external validity criteria when discussing eligible potential blood donors of all population groups in South Africa.

b. ***Internal validity***

Internal validity refers to the ability of the study to draw appropriate conclusions from the data measured by the survey (Kalof et al. 2008).

The survey meets internal validity because the questions have been used in other studies to measure donor response to the questions. In order to maximise validity a focus group of blood donors was held and issues such as blood donation habits and deterrents to blood donation was discussed. The questionnaire was then used on the randomly selected blood donors.

c. ***Reliability***

Research is considered reliable if similar findings are found in repeated applications of the research surveys using similar population samples. If research instruments is reliable there is small sample error (Kalof et al. 2008).

The research proposed meets the reliability criteria because the questions have been used before in several literature reviews and similar results and conclusions have been drawn in the various studies (Schreiber et al. 2006; Harrington et al. 2007; Marantidou et al. 2007; Mathew et al. 2007; Schlumpf et al. 2008).

3.3 Quantitative Telephonic Survey

3.3.1 Research Design

The methodological approach was a telephonic survey of Current donors and Lapsed blood donors further subdivided into first-time and repeat donors. This method was appropriate for this study because in the 2003 study done by Schreiber et al (2003) donors were mailed self-administered questionnaires, of which 18.5% were undelivered because of invalid addresses, and only 24.3% of the donors responded to the survey. In a computer-assisted telephonic interview study conducted in 2007 by Harrington et al (2007) 44% of the donors responded to the study.

Thus for this study the donors were telephonically interviewed by the Egoli Zone Telerecruiting Department in order to improve the response rate of the blood donors.

The advantage of this method of research was the ability to interview a large sample of blood donors.

The disadvantage of this method was the lack of physical presence of the blood donors and thus body language was not visible. Another disadvantage of this method was the time constraints as asking questions over the telephone proved to be time consuming and thus donors were contacted in order to ascertain a suitable time for the interview in order to negate this disadvantage.

3.3.2 Population and sample

a. Population

Since 1993 all information regarding SANBS blood donors and the donor's donation history is contained in the computerised Meditech® database. The database includes all personal information such as date of birth, gender, residential and postal address, contact details, types of donations, frequency of donations, previous and current deferrals and all blood test results.

b. ***Sample and sampling method***

This study used a randomly selected sample of blood donors from the Egoli Zone donor base from two donor centres, namely Fairlands and Westgate.

The donor data was extracted from the Meditech® database and imported into an Excel® spreadsheet for the purpose of defining the sample population, selecting the study subjects, namely the blood donors, and analysis of the demographic information.

The donors were divided into current donors and lapsed donors and further into first-time and repeat donors. Within each of the four groups, 200 donors were randomly selected which should provide enough statistical data to address the main and sub-problems described.

Table 2: Profile of Respondents to the Telephonic Survey

Description of respondent type	Number to be sampled
Current First-time donors	50
Current Repeat donors	50
Lapsed First-time donors	50
Lapsed Repeat donors	50

3.3.3 *The research instrument*

The research instrument developed from the focus group was a combination of demographic information, open –ended questions and closed questions.

Each section addressed an aspect of why donors continue to donate, what deters donors from donating and why do donors stop donating.

- ♦ Section A contains the known demographic information as extracted from the donor data base and unknown demographic information obtained

from the donor.

- ◆ Section B contains the questions regarding the motivators that encourage donors to start donating blood.
- ◆ Section C contains the questions regarding the deterrents that decrease the donation frequency of donors.
- ◆ Section D contains the questions for the lapsed donors who have stopped donating blood.

Most of the questions have been taken from the literature review, however some of the questions were not applicable to the South African context and thus the wording was changed (Schreiber et al. 2006; Harrington et al. 2007; Marantidou et al. 2007; Mathew et al. 2007; Schlumpf et al. 2008).

3.3.4 Procedure for data collection

The sampling was done with those blood donors who had cellphone's or landlines, aged 16 years and older, and mentally competent to answer the questions asked, donors who had been marked as temporary or permanently deferred were not be contacted.

A notice was mailed to the donors informing them that they had been selected to participate in a telephonic survey. The notice contained a letter of introduction and a contact number if there were any questions regarding the survey.

Two weeks later each donor received a telephonic call to set up an appointment for the survey in order to ensure that the interview took place at the optimal time for the donor and the Egoli Zone Telerecruitment department. At the appointed time a trained Telerecruiter contacted the donor to conduct the interview according to the questionnaire devised.

3.3.5 Data analysis and interpretation

The quantitative research where 5 point verbal scale responses are required was analysed as ordinal data. Responses were dichotomised equal to and less than two as positive responses whilst responses with scores of equal to and greater than three were regarded as negative responses to the questions. These dichotomised responses were compared to the sociodemographic data of the donors and comparisons performed with categorical analysis of variance methods (Schreiber et al. 2006).

The analysis of the quantitative and qualitative methods, using descriptive statistics, explained the percentage of each group's responses to the questions of what keeps donors donating, what deters donors and what causes donors to stop donating blood.

3.3.6 Limitations of the study

First-time lapsed donors have not returned to donate because these donors may be resident in the regions outside of the Meditech® database region; SANBS has two computerised data systems, Progesa® (Mak Systems) in the coastal regions and Meditech® in the inland regions. Thus the donor classified as a first-time lapsed donor on the Egoli Zone donor base may actually be a repeat current donor in another donor centre (Schreiber et al. 2003).

Lapsed donors who have not donated in the previous 12 months may not be contactable due to various reasons. The implication here is that not enough statistical data was collected in order to find out why donors stop donating blood.

A further limitation of the study was that the analysis of the current repeat donors was from the year 2008 to 2009 whilst the analysis of the lapsed donors was from the year 2006 to 2008 and the results of the study could reflect the characteristics of events that have taken place in the country or the transfusion service during those time frames (Schreiber et al. 2003).

3.3.7 Validity and reliability

Research is considered reliable if similar conclusions are found in repeated applications of the research survey using similar population samples. If research instruments are reliable then there is a small sample error (Kalof et al. 2008).

Validity is essential to ensure congruence or 'goodness of fit' (Kalof et al. 2008) of the research instrument to ensure that the instrument measures what it is supposed to measure and whether the conclusions can be extrapolated to a larger population, and to ensure consistency between the details of the survey, the responses to the questions and the conclusions determined by the researcher.

a. External validity

External validity refers to the ability to take the survey findings and to generalise the findings to a larger population (Kalof et al. 2008).

This study might not meet the external validity criteria because not all South Africans are eligible to donate blood because of the higher HIV/AIDS prevalence in certain ethnic groups and thus the conclusions drawn might not be able to be used to generalise to the larger general public population. However, the study might meet the external validity criteria when discussing eligible potential blood donors of all population groups in South Africa.

b. Internal validity

Internal validity refers to the ability of the study to draw appropriate conclusions from the data measured by the survey (Kalof et al. 2008).

The survey meets internal validity because the questions have been used in other studies to measure donor response to the questions. In order to maximise validity a focus group of blood donors was held and issues such as blood donation habits and deterrents to blood donation was discussed. The questionnaire was then used on the randomly selected blood donors.

c. ***Reliability***

Research is considered reliable if similar findings are found in repeated applications of the research surveys using similar population samples. If research instruments is reliable there is small sample error (Kalof et al. 2008).

The research proposed meets the reliability criteria because the questions have been used before in several literature reviews and similar results and conclusions have been drawn in the various studies (Schreiber et al. 2006; Harrington et al. 2007; Marantidou et al. 2007; Mathew et al. 2007; Schlumpf et al. 2008).

4 CHAPTER 4: PRESENTATION OF RESULTS

4.1 Qualitative Focus Group Study

The result of each question posed to the focus group was presented in point format with reference to each research question in order to elicit the questions to ask during the telephonic survey.

4.1.1 Demographic profile of participants of Focus Group

Table 3: Demographics of Focus Group

Sample Profile = 7				
Donor No	Status	Ethnic	Number of Donations	Blood Group
D1	Current	White	35	Group O
D2	Current	White	34	Group AB
D3	Lapsed	White	100	Group O
D4	Lapsed	White	15	Group A
D5	Lapsed	White	5	Group A
D6	New	White	1	Group O
D7	Current	White	33	Group O

The Focus group consisted of 7 New, Current and Lapsed donors of various blood groups and number of blood donations.

The number of donations per donor varied from 1 donation to 100 donations.

The blood groups of the donors were also varied consisting of Group O, Group A and Group AB donors.

All the donors interviewed were from the ethnic group White blood donors.

4.1.2 Results pertaining to Research Question 1: What determines why donors start to donate blood

Why do people give blood?

- ♦ To help people because there is not enough blood.
- ♦ Encouraged by Radio drives.
- ♦ Children or family may need blood at some stage
- ♦ People feel good when they donate because they did something good.
- ♦ Most people don't have money to give to charity, so they give a part of themselves

Where did you hear about blood donation?

- ♦ Over the radio because SANBS does a lot of campaigning over Easter and Christmas

Why did you donate the first time?

- ♦ Worked at hospital and saw the need for blood
- ♦ Word of Mouth, donor was blood type O Negative and they need his blood
- ♦ Blood drive at company allows time out of the office
- ♦ Started working at SANBS and had blood drive at the Dome
- ♦ Drive at high school and all the friends were donating

4.1.3 .Results pertaining to Research Question 2: What determines donor frequency

How can we attract more donors?

- Advertise more
- Maybe get a sponsor from a big group
- Use world Cup soccer as an idea.
- Valentine 's Day blood drive and other celebrations
- Get companies involved in a points system when donating blood.
- More promotions at evening clinics e.g. Pizza, hot chocolate in winter etc

What would make it more convenient and a better experience?

- Clinics should be more like Fairlands & Westgate clinics
- It is more personal to go to a fixed site than a mobile clinic.
- Later after hours for clinics in week and Saturdays
- Get Gym's involved to advertise – posters at Gym
- Mobile clinics are very convenient if they come regularly
- Companies maybe have more competitions
- Some venues are a problem at the moment because nowhere to go donate during the week close to workplace
- Sort out scheduling for mobiles so that they know who is doing what clinic.
- Tours to SANBS for donors

4.1.4 Results pertaining to Research Question 3: What deters donor from donating blood

What puts people off donating blood?

- Needles
- People are uneducated about HIV , they think they will get it from donating blood

What would make you stop donating blood?

- Medical reasons that prevented the donor from returning to donate
- Staff that hurt you during the initial medical check or during the venepunctures procedure
- SANBS not following up and reminding donors to donate or when their deferral period is complete
- Blood drive at company was cancelled and did not communicate to donors where to go in future
- Time that donor centers are open is inconvenient, donor centers to extend their times in the evening
- If donors faint, they become scared and don't come back because of the lack of care during the faint

4.1.5 Summary of the results

a. Demographics of Focus Group

The Focus Group comprised of seven Lapsed, New and Current donors, of various blood groups and number of blood donations.

The issues discussed were regarding:

- why people give blood,
- where do people hear about blood donation,
- what deters people from donating blood,
- what can be done to attract more blood donors,
- convenience of venues and times

b. ***Results pertaining to Research Questions:***

The results of the focus group and the answers to the questions asked lead to the development of the questionnaire for the telephonic survey and the quantitative data obtained.

Each section addressed an aspect of why donors continue to donate, what deters donors from donating and why do donors stop donating.

- Section A contains the known demographic information as extracted from the donor data base and unknown demographic information obtained from the donor.
- Section B contains the questions regarding the motivators that encourage donors to start donating blood.
- Section C contains the questions regarding the deterrents that decrease the donation frequency of donors.
- Section D contains the questions for the lapsed donors who have stopped donating blood.

4.2 Quantitative Telephonic Survey

The result of each question on the questionnaire was presented in table format for the nominal responses and graphical representation of the 5 point ordinal responses. Responses were dichotomised equal to and less than two as positive responses whilst responses with scores of equal to and greater than

three was regarded as negative responses to the questions.

4.2.1 *Demographics of Donor Sample Group*

Table 4: Demographics of Donor Sample Group

Lapsed Sample Profile n = 94				
Status	Gender	Ethnic	Number	Percentage
Lapsed	Female	Asian	0	0%
Lapsed	Female	Black	6	6%
Lapsed	Female	Coloured	4	4%
Lapsed	Female	White	44	47%
Lapsed	Male	Asian	0	0%
Lapsed	Male	Black	3	3%
Lapsed	Male	Coloured	6	6%
Lapsed	Male	White	31	33%
Current Sample Profile n = 150				
Status	Gender	Ethnic	Number	Percentage
Current	Female	Asian	2	1%
Current	Female	Black	3	2%
Current	Female	Coloured	2	1%
Current	Female	White	69	46%
Current	Male	Asian	4	3%
Current	Male	Black	6	4%
Current	Male	Coloured	1	1%
Current	Male	White	63	42%

White Females make up the greater part of both the Lapsed and Current donor

sample of 47% and 46%, followed by the White Male at 33% and 42% respectively.

Within the Coloured and Black ethnic groups 19% consists of Lapsed donors and 8% Current donors.

Due to the pre-2005 SANBS method of risk profiling of Black, Coloured and Asian donors, there was no concerted effort to recruit donors of this ethnic group, thus the percentages of White Males and Females is expected. However, the 19% Lapsed donor sample as compared to the 8% of Current donor sample was not expected because there has been a corporate strategic plan in place in 2008, through to 2009, to increase the Black, Coloured and Asian donor base in SANBS.

Table 5: Sociodemographic of Donor Sample Group

Lapsed Sample Profile n = 94				
Status	Level of Education	Employment Status	Number	Percentage
Lapsed	Primary	Employee	1	1%
Lapsed	Primary	Self-employed	1	1%
Lapsed	Secondary	Employee	35	37%
Lapsed	Secondary	Retired	2	2%
Lapsed	Secondary	Self-employed	3	3%
Lapsed	Secondary	Student	1	1%
Lapsed	Tertiary	Employee	40	43%
Lapsed	Tertiary	Self-employed	4	4%
Lapsed	Tertiary	Student	4	4%
Lapsed	Tertiary	Unemployed	3	3%

Current Sample Profile n = 150				
Status	Level of Education	Employment Status	Number	Percentage
Current	Primary	Employee	3	2%
Current	Secondary	Employee	37	25%
Current	Secondary	Retired	3	2%
Current	Secondary	Self-employed	4	3%
Current	Secondary	Student	3	2%
Current	Secondary	Unemployed	4	3%
Current	Tertiary	Employee	63	42%
Current	Tertiary	Retired	1	1%
Current	Tertiary	Self-employed	15	10%
Current	Tertiary	Student	14	9%
Current	Tertiary	Unemployed	3	2%

Within the Sociodemographic profile, employees make up 80% of the Lapsed donor sample and 67% of the Current donor sample. In the Current donor sample, Self-employed donors make up 10% of the sample. 98% of the level of education is both of the Secondary and Tertiary levels. 2% of either donor status is from the Primary level of education.

This is an expected result because in order to become a blood donor a certain level of literacy and understanding is required to complete the self-exclusion donor form. However, in South Africa, with the disadvantages experienced by the Black, Coloured and Asian population in the Education system, literacy levels might not be at an acceptable level, this does not necessarily indicate that the level of understanding is below acceptable levels.

Table 6: Sociodemographic of Donor Sample Group

Lapsed Sample Profile n = 94			
Status	Marital Status	Number	Percentage
Lapsed	Divorced	3	3%
Lapsed	Living Together	7	7%
Lapsed	Married	48	51%
Lapsed	Single	34	36%
Lapsed	Widowed	2	2%
Current Sample Profile n = 150			
Status	Marital Status	Number	Percentage
Current	Divorced	7	5%
Current	Living Together	9	6%
Current	Married	87	58%
Current	Single	47	31%

The marital status in the Married and Single categories of the Lapsed and Current donor samples are almost equal, Married at 51% in Lapsed sample and 58% in the Current sample as with Single in the Lapsed sample at 36% and 31% in the Current sample.

Table 7: Age Categories of Donor Sample

Lapsed Sample Profile n = 94				
Status	Gender	Age Category	Number	Percentage
Lapsed	Female	<20	1	1%
Lapsed	Female	<30	19	20%
Lapsed	Female	<40	15	16%
Lapsed	Female	<50	10	11%
Lapsed	Female	<60	8	9%
Lapsed	Female	<70	1	1%
Lapsed	Male	<20	1	1%
Lapsed	Male	<30	15	16%
Lapsed	Male	<40	11	12%
Lapsed	Male	<50	5	5%
Lapsed	Male	<60	7	7%
Lapsed	Male	<70	1	1%

Current Sample Profile n = 150				
Status	Gender	Age Category	Number	Percentage
Current	Female	<20	5	3%
Current	Female	<30	25	17%
Current	Female	<40	19	13%
Current	Female	<50	18	12%
Current	Female	<60	7	5%
Current	Female	<70	2	1%
Current	Male	<20	3	2%
Current	Male	<30	19	13%
Current	Male	<40	21	14%
Current	Male	<50	11	7%
Current	Male	<60	18	12%
Current	Male	<70	2	1%

Females of the age group 20 – 49 years make up 47% of the Lapsed donor sample whilst the same age group makes up 42% of the Current donor sample. Males in the age group 20 to 39 years makes up 28% of the Lapsed donor sample whilst the same age group makes up 27% of the Current donor sample with 12% of the Current males in the 50 year old age category. This is an expected result because generally the donors that donate at donor centres make up the economically active population.

The age range is depicted graphically below:

Diagram 1: Age Range of donor sample by Gender and Status

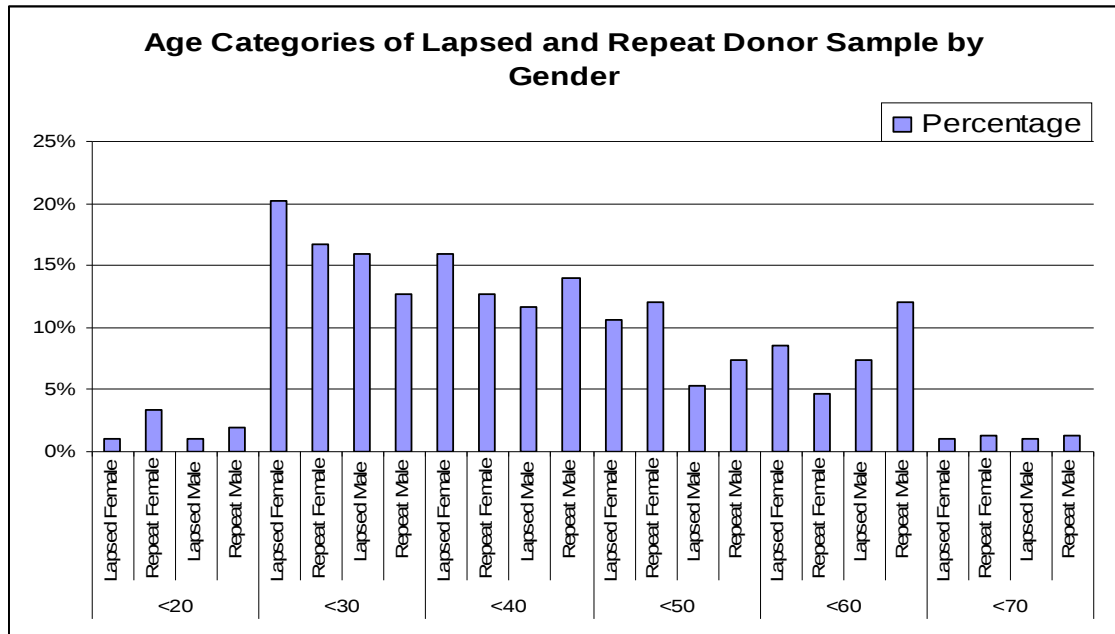
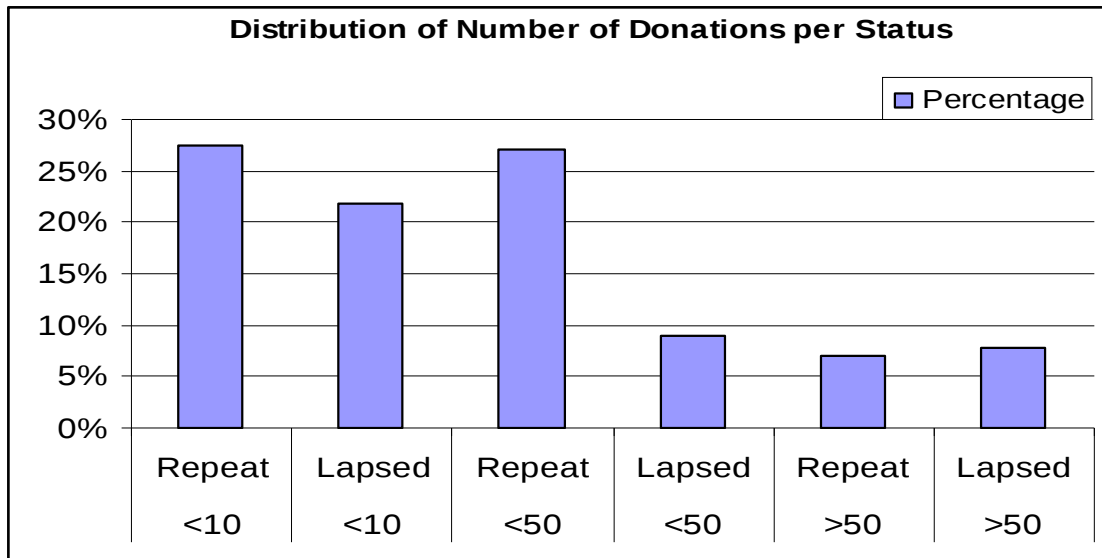


Table 8: Distribution of Number of Donations per Status

Donor Sample Profile n = 244		
Number of Donations	Donor Status	Percentage
<10	Current	27%
<10	Lapsed	22%
<50	Current	27%
<50	Lapsed	9%
>50	Current	7%
>50	Lapsed	8%

Diagram 2: Distribution of Number of Donations per Status



22% of the Lapsed donor sample and 27% of the Current donor sample have donated less than 10 units of blood, 9% of the Lapsed donor sample and 27% of the Current donor sample have donated less than 50 units of blood, and 7% of the Lapsed donor sample and 8% of the Current donor sample have donated more than 50 units of blood.

4.2.2 Results pertaining to Research Question 1: What determines why donors start to donate blood

Table 9: Personal Transfusion Experience

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Have you or anyone close to you ever received a blood transfusion?	Yes	No	Yes	No
	21	73	44	106
	22%	78%	29%	71%

The numbers of donors who have had a personal experience of receiving a blood transfusion or somebody close experiencing a blood transfusion has

increased from the Lapsed donor sample of 22% to the Current donor sample of 29%.

Table 10: Perceived Need for Blood

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Do you feel that in South Africa there is enough blood available for those who need it?	Yes	No	Yes	No
	5	89	4	146
	5%	95%	3%	97%
Have you ever seen or heard an advertising campaign for blood donation?	Yes	No	Yes	No
	82	12	125	25
	87%	13%	83%	17%
Would advertising encourage you to donate blood?	Yes	No	Yes	No
	77	17	132	18
	82%	18%	88%	12%

95% of Lapsed and Current donor sample are aware that there is not a sufficient supply of blood and blood products in South Africa.

87% of Lapsed donor sample have reported seen or hearing an advertising campaign for blood donations which is greater than the 83% of Current donor sample, however 82% of Lapsed donor sample felt encouraged by advertising to donate whilst 88% of Current donor sample felt encouraged to donate blood by the seen or heard advertising.

Table 11: Altruistic Behaviour

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Have you ever given directions to a stranger?	Yes	No	Yes	No
	75	19	118	32
	80%	20%	79%	21%
Given money to charity?	Yes	No	Yes	No
	82	12	128	22
	87%	13%	85%	15%
Given money to a stranger who asked for it?	Yes	No	Yes	No
	77	17	113	37
	82%	18%	75%	25%
Donated goods or clothes for a charity?	Yes	No	Yes	No
	83	11	126	24
	88%	12%	84%	16%
Done volunteer work for a charity?	Yes	No	Yes	No
	45	49	71	79
	48%	52%	47%	53%

In both the Lapsed and Current donor sample, the donors have acknowledged that altruistic behaviour is displayed by assisting strangers, giving money to charity or strangers or have donated goods and clothes to charity.

It is in the category of volunteer work where both the Lapsed and Current donor sample have 50% willingness to volunteer time to work for a charity. This is not congruent to the statement by made previously that donors who have stopped donating because the experience of donating blood was felt to be impersonal and not as satisfying as other volunteer activities where a personal relationship could be developed with the recipient and that most lapsed donors did not view

blood donation as an important worthy volunteer activity, in fact some stated that donating blood was the “easy way out” (Mathew et al. 2007).

Table 12: Motivators to Donate Blood

Donor Sample Profile n = 244						
Donor Status:	Lapsed			Current		
Where did you first hear about blood donation?	Advertising	6	6%	Advertising	17	11%
	Parents	15	16%	Parents	28	19%
	Workplace	23	24%	Workplace	19	13%
	School	21	22%	School	0	0%
	University	2	2%	University	8	5%
	Friends	12	13%	Friends	21	14%
	Other	8	9%	Other	11	7%
	Self-Motivated	7	7%	Self-Motivated	46	31%
Donor Status:	Lapsed			Current		
What made you start donating blood?	Help others	36	38%	Help others	60	40%
	Self	30	32%	Self	50	33%
	Peers	24	26%	Peers	28	19%
	Family	4	4%	Family	11	7%
	Advert	0	0%	Advert	1	1%
Donor Status:	Lapsed			Current		
Before your last donation, did you receive any request to come and donate blood?	SMS	60	64%	SMS	119	79%
	Email	1	1%	Email	6	4%
	Telephone	24	26%	Telephone	20	13%
	Mail	2	2%	Mail	2	1%
	Nil	7	7%	Nil	3	2%

The Lapsed donor sample reported that 76% of the awareness of blood donation came from parents, workplace, school and friends, whilst the desire to

help others, peer pressure and self-motivation convinced 96% of Lapsed donor sample to start donating blood. Awareness of blood donation in 57% of Current donor sample came from parents, workplace, friends and advertising; however 31% of Current donor sample became self aware resulting in 92% of Current donor sample becoming blood donors.

93% of Lapsed donor sample and 98% of Current donor sample did receive some form of communication such as SMS, Email, Mail or a telephonic call reminding the due donor to donate. This is to be expected because SANBS has a donor recruitment program that include telerecruitment of donors due to donate, SMS's sent on the day of the blood drive and reminder mail that is sent out at least four weeks before the day of the blood drive or due date of the donor.

4.2.3 Results pertaining to Research Question 2: What determines donor frequency

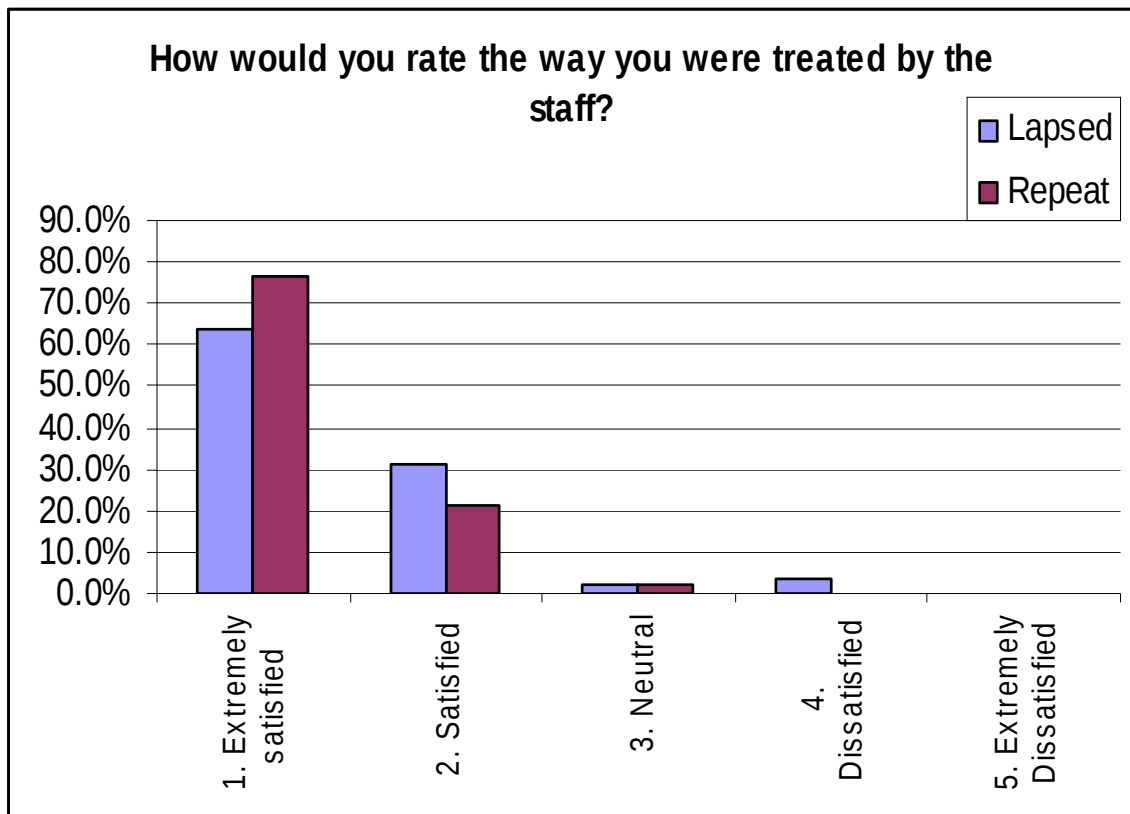
Table 13: Satisfaction with Last Donation

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Were you glad you donated?	Yes	No	Yes	No
	91	3	149	1
	97%	3%	99%	1%
Were you nervous or scared about your last donation?	Yes	No	Yes	No
	9	85	15	135
	10%	90%	10%	90%

97% of Lapsed donor sample and 99% of Current donor sample expressed gladness at donating blood and 10% of each category expressed nervousness or fear at the prospect of donating blood.

The low figure of 10% or 1 out of 10 donors expressing anxiety about donating blood is unexpected because fear of needles and pain is often a reason giving by the general public as to the reason for not donating blood.

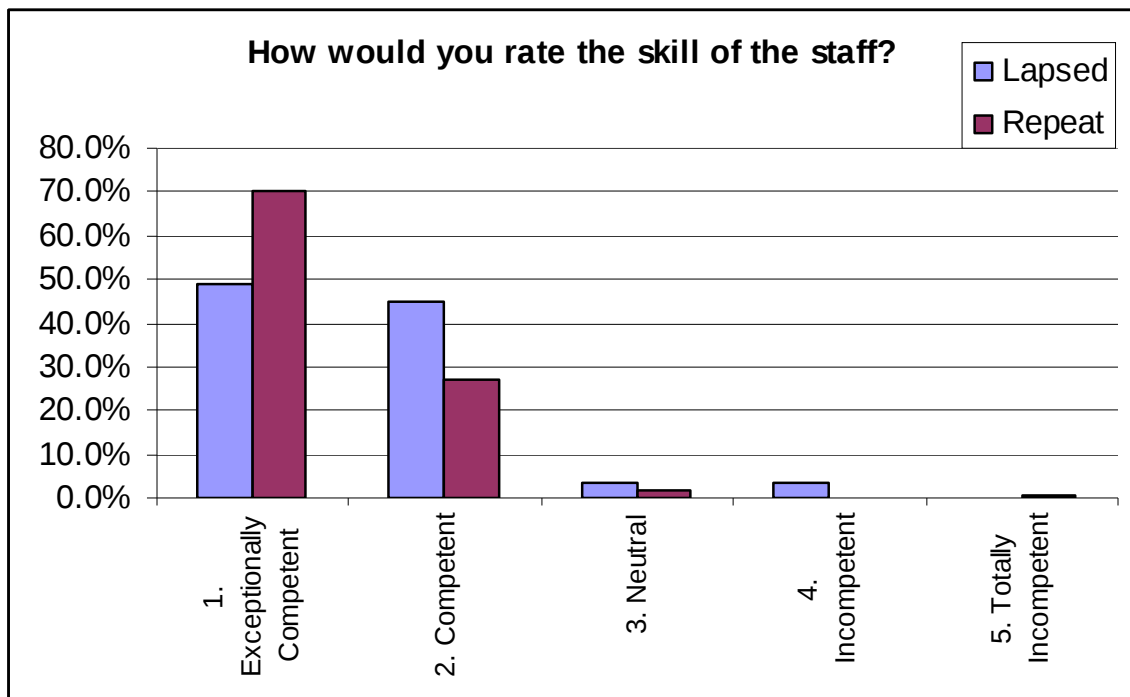
Diagram 3: Treatment by Donor Centre staff



95% of Lapsed donor sample and 98% of Current donor sample expressed satisfaction with the customer service received by the staff of the donor centre. This was expected as the two donor centres surveyed generally do have a very high customer service ethic and have received many customer compliments.

The reasoning behind the choice of these two donor centres was so that the responses and information received from the donor survey would not be clouded by complaints of poor customer service and incompetent staff members. There have been customer complaints about poor phlebotomy technique and bad customer service delivered by the staff members of SANBS, a situation that the zone management is working to correct.

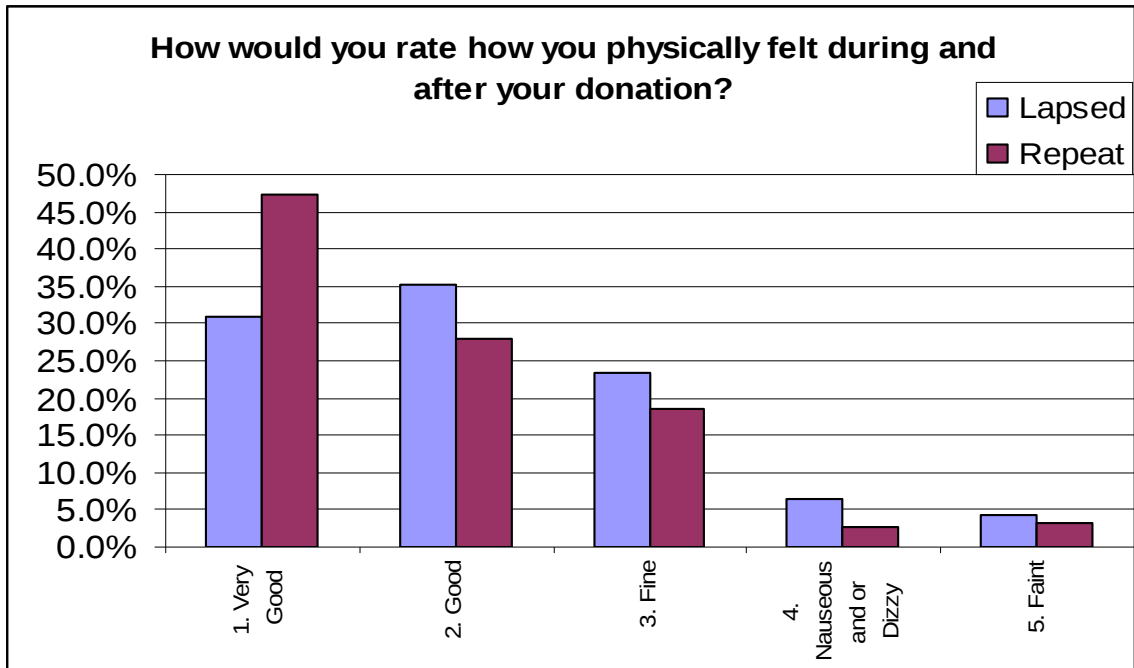
Diagram 4: Rating of Skill of Donor Centre staff



94% of Lapsed donor sample and 97% of Current donor sample expressed satisfaction with the competence and venepunctures technique displayed by the donor centre staff members.

This is expected because there has been a lot of vocational training implemented in SANBS to improve the venepunctures technique of the SANBS phlebotomists, also there has been an increase in the training of non-medical personnel as phlebotomists in order to decrease the workload pressure placed on the medically trained phlebotomists. A two year internship has been implemented from 2007.

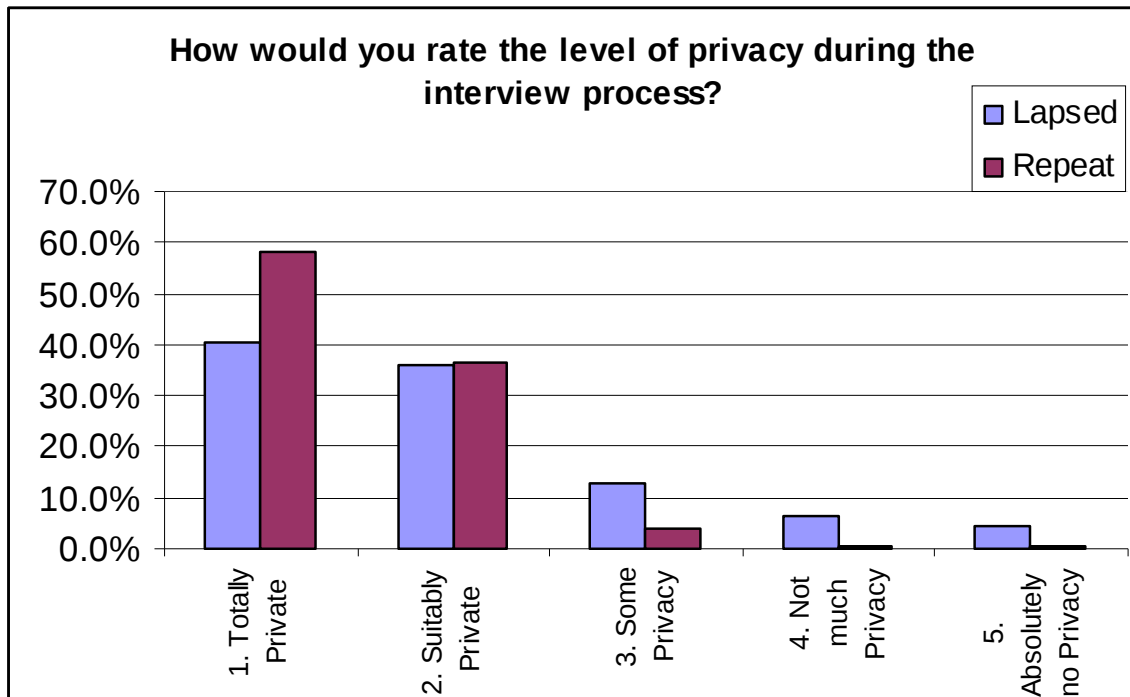
Diagram 5: Rating of Donor Experience during and after donation



66% of Lapsed donor sample and 75% of Current donor sample expressed satisfaction how the donors felt physically during and after the phlebotomy process.

This is to be expected because the loss of 500 millilitres of blood can result in symptoms of shock leaving the donors feeling nauseous, dizzy and faint, particularly if the donor is not feeling completely well on the day of donation.

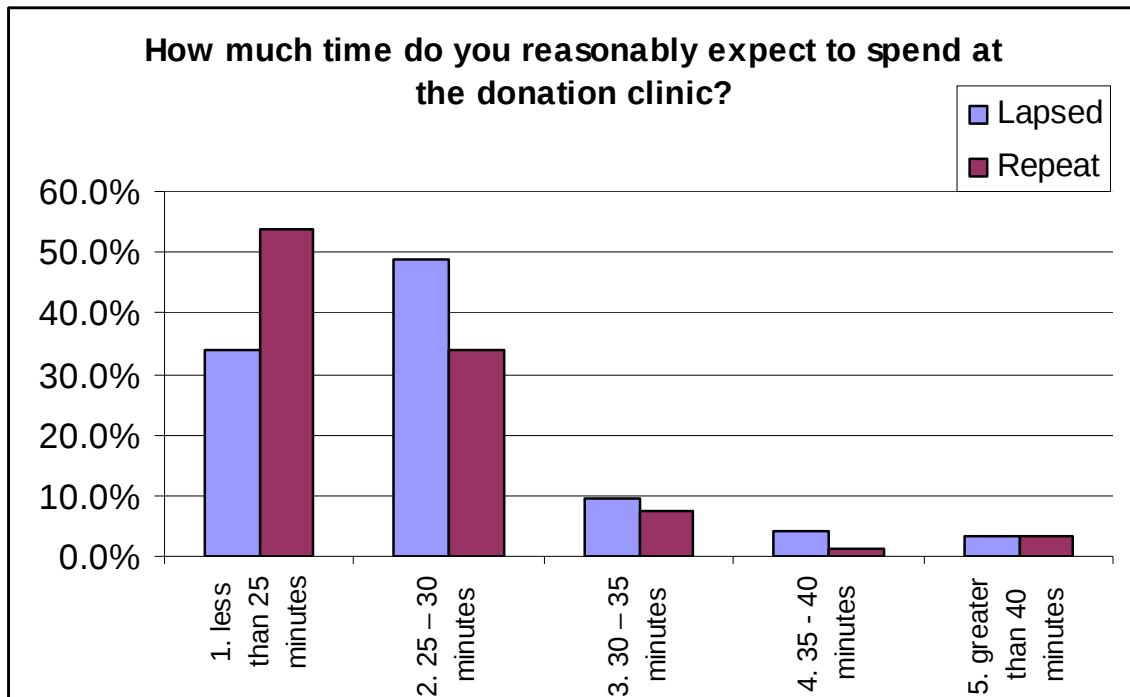
Diagram 6: Rating of Level of Privacy at Donor Centre



77% of Lapsed donor sample expressed satisfaction regarding the level of privacy available during the interview process. The interview process requires a medical examination and the reviewing of the self-exclusion donor form completed by the donor.

95% of Current donor sample expressed satisfaction with the level of privacy available during the interview process. This is due to the fact that the Lapsed donor sample donated prior to 2009, whilst the Current donor sample has donated during 2009. In 2009 both the donor centres have been renovated and a more private area has been created for the interview process.

Diagram 7: Duration of Donation process



83% of Lapsed donor sample expect to finish the blood donation process in a period of time of less than 30 minutes whilst 88% of Current donor sample expect the blood donation process to be complete within 30 minutes.

Table 14: Rating of Overall Experience

Donor Sample Profile n = 244						
Donor Status:	Lapsed	Lapsed	Lapsed	Current	Current	Current
How would you rate your overall donation experience?	Positive	Negative	Neutral	Positive	Negative	Neutral
	83	2	9	142	3	5
	88%	2%	10%	95%	2%	3%

88% of Lapsed donor sample and 95% of Current donor sample reported that the overall blood donation experience was that of a positive nature.

Table 15: Deferrals

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Have you been deferred previously?	Yes	No	Yes	No
	53	41	84	66
	56%	44%	56%	44%
Did you receive enough information regarding your deferral?	Yes	No	Yes	No
	44	8	80	4
	85%	15%	95%	5%
Where you told when you could return to donate again?	Yes	No	Yes	No
	45	7	79	6
	87%	13%	94%	6%

56% of Lapsed and Current donor sample have reported been deferred previously.

Of the 56% of the Lapsed donor sample that had been deferred, 15% of donors did not receive enough information regarding the reason for the deferral and 13% of donors were not informed regarding the length of the deferral period.

Of the 56% of the Current donor sample that had been deferred, 5% of donors did not receive enough information regarding the reason for the deferral and 6% of donors were not informed regarding the length of the deferral period.

Table 16: Receipt of Gifts

Donor Sample Profile n = 244				
Donor Status:	Lapsed	Lapsed	Current	Current
Have you ever received a gift for donating four times during the year?	Yes	No	Yes	No
	38	56	76	74
	40%	60%	51%	49%

40% of Lapsed donor sample and 51% of Current donor sample had received a gift for donating four times during the year.

Diagram 8: Importance of Incentives to Donors who did not receive a Gift

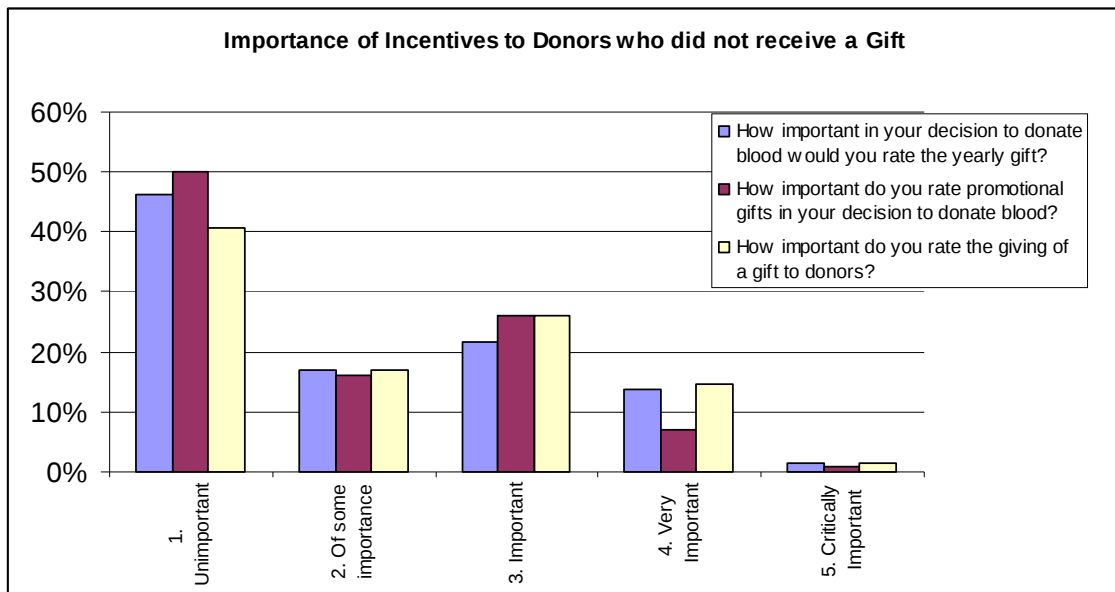
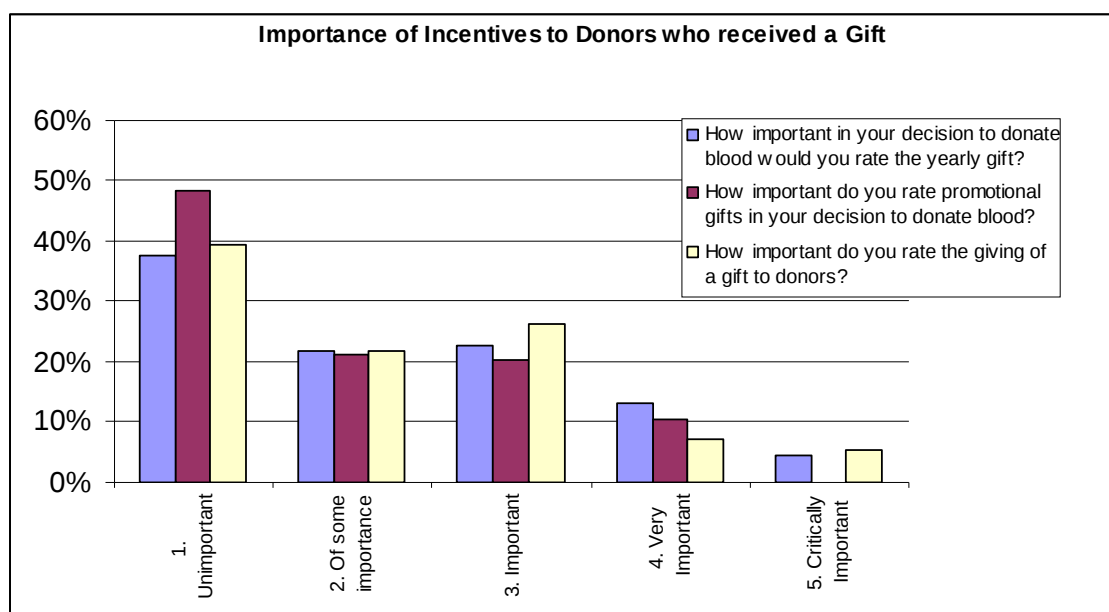


Diagram 9: Importance of Incentives to Donors who did receive a Gift



Comparison of *Diagrams 8 and 9* reveals that 37% of donors who did not receive a gift and 40% of donors who did receive a gift regarded the gift as important in the decision to donate blood four times a year, 37% of donors who did not receive a gift and 40% of donors who did receive a gift regarded the promotional gift as important in the decision to donate blood; and 37% of donors who did not receive a gift and 40% of donors who did receive a gift of donors regarded the receiving of gifts as important in the process of blood donation.

Table 17: Importance of Incentives

Donor Sample Profile n = 244		
Donor Status	Lapsed	Current
How important in your decision to donate blood would you rate the yearly gift?	43%	36.0%
How important do you rate promotional gifts in your decision to donate blood?	36%	30.0%
How important do you rate the giving of a gift to donors?	45%	38.0%

43% of Lapsed donor sample and 36% of the Current donor sample regarded the gift as important in the decision to donate blood four times a year, 36% of Lapsed donor sample and 30% of Current donor sample regarded the promotional gift as important in the decision to donate blood and 45% of Lapsed donor sample and 38% of Current donor sample regarded the receiving of gifts as important in the process of blood donation.

Both Lapsed and Current donor samples requested gifts of a small and useful nature, gifts such as T-shirts, mugs, key rings and pens, and “tokens of appreciation” such as badges, certificates and medals.

Some donors suggested movie or petrol vouchers to ease the cost of living and having to drive to donor centres.

8 donors representing 3% of the Lapsed and Current donor sample suggested “free blood” or credits towards a discounted fee for blood should the donor or family member require blood, as an incentive to return to donating blood.

6 donors representing 2% of the Lapsed and Current donor sample suggested remuneration with cash for the donation of blood.

18% of the Lapsed and Current donors were of the opinion that no gifts should be given other than a cup of coffee, a biscuit or two and a Thank You SMS because donation blood is a gift of love and life.

Table 18: Ease of Access to Donor Centres

Donor Sample Profile n = 244						
Donor Status	Lapsed			Current		
Do you find the venue convenient?	Yes	No		Yes	No	
	86	8		144	6	
	91%	9%		96%	4%	
Do you find the day of the blood drive convenient?	Yes	No		Yes	No	
	48	46		139	11	
	51%	49%		93%	7%	
For your donation site what day of the week would you suggest for a blood drive?	Monday	6	6%	Monday	0	0%
	Tuesday	1	1%	Tuesday	4	3%
	Wednesday	15	16%	Wednesday	13	9%
	Thursday	1	1%	Thursday	12	8%
	Friday	5	5%	Friday	9	6%
	Saturday	38	40%	Saturday	60	40%
	Sunday	13	14%	Sunday	5	3%
	Anyday	15	16%	Anyday	44	29%
	Weekend	0	0%	Weekend	1	1%
	Weekdays	0	0%	Weekdays	2	1%
Do you find the time of the blood drive convenient?	Yes	No		Yes	No	
	56	38		102	48	
	60%	40%		68%	32%	

9% of the Lapsed donor sample and 5% of the Current donor sample did not find the venue accessible, 49% of the Lapsed donor sample and 7% of the Current donor sample did not find the opening day of the donor centre

convenient, and 40% of the Lapsed donor sample and 32% of the Current donor sample did not find the opening times of the donor centres convenient.

Wednesdays 16%, Saturdays 40% and Sundays 14% were the days requested by the Lapsed donor sample, similarly Saturdays 40% were requested by the Current donor sample.

The times suggested by both the Lapsed and Current donor sample was for the donor centre to remain open on at least two evenings per week until at least 20:00 and to remain open on Saturdays and Sundays from 09:00 to at least 15:00.

4.2.4 Results pertaining to Research Question 3: What deters donor from donating blood

Table 19: Deterrents to Blood Donation

Lapsed Donor Sample Profile n = 94		
Why have you not continued to donate blood?		
Deterrent	Number	Percentage
Bad Service	2	2%
Medical	35	37%
Never Contacted	2	2%
No Comment	4	4%
Pay For Blood	2	2%
Time	39	41%
Veins	2	2%
Venue Change	8	9%

37% of the Lapsed donor sample did not return to donate blood because of having being deferred for medical reasons. 39% of the Lapsed donor sample

cited the lack of time and busy work and home life schedules as the reason for not returning to donate blood. Bad Customer Service, lack of recruitment, poor venepunctures technique by the donor centre staff, venue change and lack of venous access were the other reasons cited for the non-return of donors.

2% of Lapsed donor sample stopped donating blood because all patients who have received blood or blood products are required to claim for blood expenses from their medical aid or pay private fees.

Table 20: Encouragement Required

Lapsed Donor Sample Profile n = 94		
What would encourage you to return to donate blood if you were able to?		
Encouragement	Number	Percentage
Free Blood	2	2%
Money	1	1%
No Comment	4	4%
Phone Call	17	18%
Qualified Staff	2	2%
Reminder	8	9%
Self	44	47%
Time Inconvenient	8	9%
Venue Inconvenient	8	9%

47% of Lapsed donor sample reported that the return to donating blood could only be accomplished when the donor feels healthy again or finds a convenient time or venue.

27% of Lapsed donor sample felt that a telephone call or reminder SMS or mail would be an encouragement to return to donating blood because this

engenders a feeling of been appreciated as a blood donor.

2% of Lapsed donor sample felt that more competent donor staff would encourage a return to blood donating, whilst 3% cited the need to receive “free blood” or money would be an encouragement to donate blood.

4.2.5 Summary of the results

a. Demographics of Donor Sample Group

The donor sample consisted of 47% Lapsed White Females and 46% Current White Females. The rest of the donor sample comprised 33% Lapsed White Males and 42% Current White Male, 19% of Lapsed Black and Coloured donors and 8% of Current Black and Coloured donors.

With reference to Employment status, the Lapsed donor sample comprises 80% of Employees and 67% Current donor sample donors. Self-Employed Current donor sample make up 10% of the donor panel.

With reference to Level of Education, 98% of both Lapsed and Current donor sample have a Secondary or Tertiary level of education.

51% of the Lapsed donor sample and 58% of the Current donor sample is Married, and 36% of the Lapsed donor sample and 31% of the Current donor sample is Single.

Females of the 20 – 49 age groups make up 47% of the Lapsed donor sample and 42% of the Current donor sample. Males of the 20 – 39 age groups make up 28% of the Lapsed donor sample and 27% of the Current donor sample. There an extra group of Current Males of the age group of 50 years that represents 12% of the donor sample.

b. ***Demographics of South African population and SANBS donor population***

Table 21: SANBS Donor Population versus South African Population

SANBS Donor Base			
Race Group	SANBS Donor Population	South African Population 2007	Percentage
White	424,723	2,759,400	15.4%
Asian	71,783	811,700	8.8%
Coloured	39,754	2,834,900	1.4%
Black	159,920	23,457,900	0.7%
Grand Total	696,180	29,863,900	2.3%

In South Africa 2.3% of the eligible population from ages 16 to 65 years are blood donors, or have attempted to donate blood and were deferred on the first attempt, the SANBS donor base consists of 700,000 donors as at January 2010 and is compared to the South African population as at 2007 as these are the only verified population statistics as issued by the Statistics Department of South Africa (Lehohla 2007).

Table 22: SANBS Current Donor Population versus South African Population

Total Current Donor Base			
Race Group	SANBS Current Donor Population	South African Population 2007	Percentage
White	235,860	2,759,400	9%
Asian	29,392	811,700	4%
Coloured	19,848	2,834,900	1%
Black	89,269	23,457,900	0%
Grand Total	374,369	29,863,900	1%

The SANBS current donor base consists of 375,000 donors as at January 2010 and is compared to the South African population as at 2007 as these are the only verified population statistics as issued by the Statistics Department of

South Africa (Lehohla 2007). Here only 1% of the populations donated blood, 9% of the White population, 4% of the Asian population, 1% of the Coloured population and 0.7% of the Black population donates blood.

Table 23: SANBS Lapsed Donor Population

Total Lapsed Donor Base		
Race Group	SANBS Lapsed Donor Population	Percentage
White	167,334	61%
Asian	33,207	12%
Coloured	16,645	6%
Black	56,442	21%

Of the 275,000 SANBS Lapsed donor population 61% of the White donors, 12% of the Asian donors, 6% of the Coloured donors and 21% of the Black donors have not returned to donate blood.

c. ***Results pertaining to Research Question 1: What determines why donors start to donate blood***

The number of donors who have had a personal experience with the receipt of a blood transfusion is 22% of the Lapsed donor sample and 29% of the Current donor sample. This indicates that 1 in 3 donors who are current donors have received blood or blood products or know somebody within a close relationship have received blood or blood products.

95% of Lapsed and Current donor sample are aware that the supply of blood and blood products in South Africa is of an inadequate supply.

More than 80% of Lapsed and Current donor sample are aware of the advertising campaigns conducted by SANBS and these advertising campaigns have encouraged more than 80% of Lapsed and Current donor sample to donate blood. This translates into 1 out of 4 donors hear and see the advertising campaigns and respond to the campaigns.

Lapsed and Current donor sample displayed altruistic behaviour by giving of directions, money, good and clothes to strangers and charities; however the

giving of time was not well displayed with 50% of Lapsed and Current donor sample assisting charity with the presence of the donor.

76% of Lapsed donor sample and 57% of Current donor sample became aware of blood donation through parents, friends, peers, workplace, and schools; however 31% of Current donors became self-aware regarding blood donation. The desire to help others, peer pressure and self-motivation convinced 96% of the Lapsed donor sample and 92% of the Current donor sample to become blood donors. In the Lapsed donor sample peer pressure accounted for 26% of the donors converting to blood donors whilst in the Current donor sample peer pressure accounts for 19%. Family influence is higher in the Current donor sample at 7% compared to the 4% in the Lapsed donor sample. Advertising played no part in the Lapsed donor sample and converted 1% of the Current donor panel into blood donors.

93% of the Lapsed donor sample and 98% of the Current donor sample did receive some form of communication from SANBS as a reminder to donate blood.

The conclusion derived from these results is that despite the personal experience of being a blood recipient, the awareness of the lack of available blood supply in South Africa, the awareness of SANBS advertising campaigns and being encouraged by these campaigns, displaying altruistic behaviour, the Lapsed donor sample have not returned to donate blood. Self-motivation in becoming aware of blood donation and remaining a blood donor is present in 7% of Lapsed donor sample in awareness of blood donations whilst 32% of Lapsed donor sample were self-starters in becoming a blood donor.

Within the Current donor sample, higher level of personal experience of as a blood recipient, a higher level of awareness of the lack of available blood supply in South Africa, the awareness of SANBS advertising campaigns and a higher level of encouragement by these campaigns, despite lower levels of altruistic behaviour, the Current donor sample returns to donate blood. Self-motivation in becoming aware of blood donation and remaining a blood donor is present in 31% of the Current donors in awareness of blood donations and 33% of Current

donors were self-starters in becoming a blood donor.

Peer pressure, family and friends are an introduction and influencing factor, as is the workplace and schools; however the prerequisite to remain a blood donor is self-motivation. Self-motivation and self-awareness appear to be the motivating factor in becoming a blood donor and remaining a blood donor.

The High levels of “giving” altruistic behaviour demonstrated also indicate an influencing factor in starting the general public to become blood donors.

d. ***Results pertaining to Research Question 2: What determines donor frequency***

97% of the Lapsed donor sample and 99% of the Current donor sample expressed gladness at donating blood and 90% of the Lapsed and Current donor sample did not express any nervousness or fear about donating blood.

95% of the Lapsed donor sample and 98% of the Current donor sample expressed satisfaction with the level of treatment received by the donor centre staff members, and 94% of the Lapsed donor sample and 97% of the Current donor sample articulated satisfaction with the competence and venepunctures technique of the donor centre staff. However 34% of the Lapsed donor sample and 25% of the Current donor sample was not satisfied with the way the donor felt during and after the donation process complaining of nausea, dizziness and fainting.

23% of the Lapsed donor sample and 5% of the Current donor sample expressed dissatisfaction with the level of privacy experienced during the interview process.

17% of the Lapsed donor sample and 12% of the Current donor sample experienced donation process times of greater than 30 minutes.

12% of Lapsed donor sample and 5% of the Current donor sample did not have a positive experience with regards to blood donation.

Of the 56% of the Current donors that had been deferred, 5% of donors did not

receive enough information regarding the reason for the deferral and 6% of donors were not informed regarding the length of the deferral period.

Comparison of *Diagrams 8 and 9* reveals that 37% of donors who did not receive a gift and 40% of donors who did receive a gift regarded the gift as important in the decision to donate blood four times a year, 37% of donors who did not receive a gift and 40% of donors who did receive a gift regarded the promotional gift as important in the decision to donate blood and 37% of donors who did not receive a gift and 40% of donors who did receive a gift of donors regarded the receiving of gifts as important in the process of blood donation.

43% of Lapsed donor sample and 36% of the Current donor sample regarded the gift as important in the decision to donate blood four times a year, 36% of Lapsed donor sample and 30% of Current donor sample regarded the promotional gift as important in the decision to donate blood and 45% of Lapsed donor sample and 38% of Current donor sample regarded the receiving of gifts as important in the process of blood donation.

9% of the Lapsed donor sample and 5% of the Current donor sample did not find the venue accessible, 49% of the Lapsed donor sample and 7% of the Current donor sample did not find the opening day of the donor centre convenient, and 40% of the Lapsed donor sample and 32% of the Current donor sample did not find the opening times of the donor centres convenient.

Wednesdays 16%, Saturdays 40% and Sundays 14% were the days requested by the Lapsed donor sample, similarly Saturdays 40% were requested by the Current donor sample.

The times suggested by both the Lapsed and Current donor sample was for the donor centres to remain open on at least two evenings per week until at least 20:00 and to remain open on Saturdays and Sundays from 09:00 to at least 15:00.

In conclusion the Lapsed and Current donor panels expressed a high level of satisfaction with regards to the customer service and treatment received by the donor centre staff and the level of competence of the donor centre staff

members. These are not the factors that deterred the donors from donating.

A negative experience 12%, an experience that involves nauseous, dizziness or fainting 34%, lack of privacy during the interview process 23% and extended donation process times 17% are the factors that have led to donors not returning to donate blood in the Lapsed donor sample when compared to a negative experience 5%, an experience that involves nauseous, dizziness or fainting 25%, lack of privacy during the interview process 5% and extended donation process times 12% in the Current donor sample.

With reference to deferrals, 56% of Lapsed and Current donor sample had experienced a deferral in the donors blood donation history, however 15% of the donor deferred in the Lapsed donor sample did not receive enough information regarding the reason for the deferral and 13% of the donors deferred in the Lapsed donor sample were not informed about the length of the deferral period. Comparing to the Current donor sample 5% of the donors did not receive enough information regarding the reason for the deferral and 6% of the donors were not informed about the length of the deferral period. Failure to communicate deferral reasons and length of deferral period is a factor that discourages donors from returning to donate blood.

1 out of 5, 18% of donor sample surveyed did not require any form of incentive to become a blood donor, however donor incentives in the form of annual or promotional gifts in various forms are important to at least a third to half the donors, whether the donor is part of the Lapsed or Current donor sample, in the blood donation decision making process. Donors have requested petrol vouchers to ease the burden of paying for petrol to travel to donate at the donor centre. Ten donors have stopped donating because in the history of SANBS blood donors received “free blood” if the donor was a Current donor, however this practice was deemed to be discriminatory and not financially ethical and thus was discontinued.

The Lapsed donor sample has indicated that inaccessible venues, inconvenient opening times and not been open over the weekend encourages the non-return of blood donors. 32% of the Current donor sample has also indicated that the

opening times of the donor centres are inconvenient over weekends. Currently the donor centres are open one evening a week until 19:00, open on Saturdays until 13:00 and not open on Sundays.

e. ***Results pertaining to Research Question 3: What deters donor from donating blood***

Being deferred for medical reasons 37% and the lack of time in busy work life and family life 41% are the main reasons cited for failure to return to donate blood. Other reasons cited are bad customer service 2%, no recruitment contact 2%, having to pay for blood 2%, poor venous access 2% and inconvenient venues 9%.

Motivators that would encourage the Lapsed donors to return are primarily self-motivations following improvement in health and time management 47%, including recruitment communication from SANBS at 27%. Other factors that would encourage Lapsed donors to return would be the increase in availability of venues 9% and more convenient times of the donor centres, especially over weekends 9%. Other motivators cited would be “free blood” 2% and payment for blood donation 1%.

5 CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter describes the demographic profiles of the Focus group, the demographics and sociodemographic profile of the Donor sample groups and the SANBS donor populations as opposed to the South African eligible population. There is a discussion related to each research question and the conclusions drawn from these discussions.

5.2 Demographic profile of respondents

5.2.1 Demographics of Focus Group

The Focus group comprised seven New, Current and Lapsed donors. There were 3 attempts to set up more Focus groups comprising a minimum of ten donors from each Set Respondent Group; however there was a lack of commitment from the blood donors to attend the meetings. SANBS does hold Focus groups to assess any new advertising campaigns; however these are paid members of the public procured through recruitment agencies.

The information obtained from the focus group confirmed what questions could be used in the general donor sample.

The questions asked were:

- ◆ Why people give blood
- ◆ Where do people hear about blood donations
- ◆ What puts people off donating blood
- ◆ What can be done to attract more donors
- ◆ Where and when can people give blood

5.2.2 Demographics of Donor Sample

The Respondents to the survey were scheduled to be 50 of each Current First-time donors, Current donors, Lapsed First-time donors and Lapsed Current donors, a total of 200 donors to be sampled.

Table 24: Profile of Prospective Respondents

Description of respondent type	Number to be sampled
Current First-time donors	50
Current donors	50
Lapsed First-time donors	50
Lapsed Current donors	50

The actual respondents to the survey were as follows:

Table 25: Profile of Actual Respondents

Description of Respondent type	Number Sampled
Current First-time donors	11
Current donors	139
Lapsed First-time donors	10
Lapsed Current donors	84
Failed Current donors	16
Failed Lapsed donors	6

22 Lapsed and Current donors refused to take part in the survey, citing no time; questions are too personal, felt that the interviewee was not from SANBS and generally were not very co-operative.

244 Lapsed and Current donors did take part in the survey and generally were very co-operative, friendly and interested in the fact that SANBS was dedicated to improving the customer service to the donors.

Within the donor sample White Females make up the greater part of both the Lapsed and Current donor sample of 47% and 46%, followed by the White Male at 33% and 42% respectively, an accumulation of 95% of the donor sample. The Black, Coloured and Asian ethnic groups make up 5% of the donor sample.

The ethnic diversity of the donor sample group was not equally balanced due to the fact that the donor base of SANBS consists mainly of White Males and Females; only 16% of the donor base consists of Black, Coloured and Asian donors. As at January 2010 the ethnic representation of the two donor centres surveyed is as follows:

Table 26: Ethnic Profile of Donor Centres sampled

Total	White	Asian	Coloured	Black
6,143	5,209	161	247	526
	84.8%	2.6%	4.0%	8.6%

This profile of the sample donors is consistent with the pre-2005 donor base when the Black, Coloured and Asian ethnic groups were excluded from active recruitment of donors due to the SANBS risk profiles including ethnic groups in order to ensure the safety of the blood supply. Since 2005 SANBS has implemented a new risk profiling method and new technology to test the blood samples to increase the safety to the blood supply. SANBS has also implemented recruitment strategies to recruit Black, Coloured and Asian donors; however the donor sample indicates that a lot more recruitment is necessary to increase the Black, Coloured and Asian donor base.

Within the Sociodemographic of the donor sample, employees make up 80% of the Lapsed donor sample and 67% of the Current donor sample, and the employees have either a Secondary or a Tertiary level of education. 3% of the donor sample contains donors who are employees with a Primary level of education and 1% of the Lapsed donor sample consists of a Self-employed donor with a Primary level of education.

The donors need to have a certain level of literacy skills in order to complete the self-exclusion donor form and a certain level of understanding in order to understand the questions. Also a prerequisite to complete the donor form is a certain level of language skill in English or Afrikaans as the donor forms are not printed in any of the other 12 South African languages.

The donor sample consisted mainly of married and single Lapsed and Current donors. Females of the age group 20 – 49 years make up 47% of the Lapsed donor sample and 42% of the Current donor sample, whilst Males in 20 – 39 years make up 28% of the Lapsed donor sample and 27% of the Current donor sample with an extra group of Males of 12% in the age group 50 years. The donor sample is consistent with the age groups of donors experienced in the donor centres consisting of the economically active population, whilst Males of the age group of 50 years renew the commitment to donate blood after retirement. Females of the age group of 50 years generally experience medical problems and thus generally are not a very active donor group. This is congruent with the Literature reviewed in that in the USA Female Donors have also become anaemic due to the lack of appropriate education and male donors have also become anaemic through intensive recruitment, encouraged to donate excessively in order to maintain the supply of blood (Simon 2003).

Donors of the age below the age of 20 and of the age group 20 can be found at the School Blood Drives and the University Blood Drives.

27% of the Current donor sample and 22% of the Lapsed donor sample have donated less than ten units of blood, however whilst 27% of the Current donor sample have donated more than ten units and less than fifty units of blood, only 9% of the Lapsed donor sample have donated a similar amount. The

conclusion here is that unless a donor is committed to blood donation and donates more than ten units of blood the donor is more likely to stop donating blood because in the over fifty donations category the Current donor sample contains 7% of the donor sample and the Lapsed donor sample consists of 8% of the donor sample. This indicates that after donating ten units of blood the act of blood donation becomes an ingrained life style because at an average allowable units of five per year, it takes two years to donate ten units of blood, two years of committing to attend a donor centre every 8 weeks.

In the USA only 5% of US citizens donate blood despite a 60% eligibility rate, only 8% of new donors convert to repeat donors and a 62% never return to donate blood again (Schreiber et al. 2006). In South Africa only 1% of the eligible population of ages 16 to 65 years old are current donors with the White population forming 9% of the SANBS donor populations with the Black population at 0.7% being blood donors. However in the light of the history of SANBS not recruiting the Black, Coloured and Asian population groups, this result is too be expected. Since the change in the risk profiling of the general public, there has been a concerted effort to increase the Black, Coloured and Asian donor base.

5.3 Discussion pertaining to Research Question 1: What determines why donors start to donate blood

Altruism is an important motivation for voluntary non-remunerated blood donations and can be characterised by a sense of obligation, approval and interest, awareness of the need and the purpose of the gift of blood (Misje et al. 2005). In both categories of the donor sample the donors displayed altruistic behaviour by assisting strangers and donating money, good and clothes to strangers and charities.

In South Africa 76% of the Lapsed donor sample became aware of donating blood through the influence of parents, friends and peers at the workplace and at school, however the desire to help others, self-motivation and peers converted 96% of the Lapsed donor sample from awareness into an act off blood donation. Advertising also created awareness in 87% of the Lapsed

donor with a resultant 82% of the Lapsed donor sample feeling encouraged to donate blood. 22% of the Lapsed donor panel had personal experience of self or somebody in a personal relationship been a recipient of blood or blood products. 95% of the Lapsed donor sample is aware that the blood supply is inadequate in South Africa. As compared to the USA where the term “gift of life” was coined, altruism, appeals for blood and social pressure from friends and family appear to be the key decision makers in donating blood (Glynn et al. 2003).

Within the Current donor sample 57% of the donors became aware of donating blood through the influence of parents, friends and peers at the workplace and 31% of Current donors became self aware of the need for blood. The desire to help others, peer pressure and self-motivation converted 92% of the Current donor sample from awareness into an act of blood donation. Advertising also created awareness in 83% of the Current donor with a resultant 88% of the Current donor sample feeling encouraged to donate blood. 29% of the Current donor sample had personal experience of self or somebody in a personal relationship been a recipient of blood or blood products. 95% of the Current donor sample is aware that the blood supply is inadequate in South Africa.

93% of the Lapsed donor sample and 98% of the Current donor sample did receive some form of communication reminding the donor to donate blood as opposed to the donor reports in Greece where 16.5% of the voluntary donors reported that they had not been reminded to donate raising the question of appropriate recruitment strategies (Marantidou et al. 2007).

The influencing factors that appear to start donors donating blood is the social pressure of parents, friends and peers in the workplace and schools. Advertising is also an influencing factor as is the personal transfusion experience of being a blood or blood product recipient. Awareness of the lack of blood supply also appears to be an influence factor in convincing donors to donate blood.

5.4 Discussion pertaining to Research Question 2: What determines donor frequency

In Canada the donors responded by listing the following factors as important motivational reasons for continued blood donation: an altruistic attitude, a positive personal experience with the transfusion service, the perceived need for blood and ease of access to the blood centre (Germain et al. 2007).

5.4.1 *Level of Satisfaction*

97% of the Lapsed donor sample and 99% of the Current donor sample expressed satisfaction and a lack of nervousness and fear with the last donation made by the donor. The customer service rendered by, and the competence demonstrated by the donor centre staff members was highly rated by the donor sample. 88% of the Lapsed donor sample and 95% of the Current donor sample reported that the overall experience of donating blood was a positive nature, despite the fact that 34% of the Lapsed donor sample and 25% of the Current donor sample did not feel completely well after donating blood reporting symptoms of nausea, dizziness and feeling faint.

34% of the Lapsed donor sample expressed dissatisfaction with the level of privacy during the interview process. Section 5.3.2 of the Standard Operating Procedure (SOP) MLD-003 from SANBS states that “prospective donors will be interviewed by a staff member trained and certified to assess the eligibility of an individual to donate blood” according to the defined acceptance criteria for donors (SANBS 2005).

17% of the Lapsed donor sample and 12% of the Current donor sample experienced a prolonged donation process of more than 30 minutes. Donors in the USA also complained about the lengthy process (Schreiber et al. 2006) and this was confirmed in the Grecian study where donors also displayed dissatisfaction with the waiting time (48.7% of donors) and the unpleasantness of the physical environment (32.2% of donors) (Marantidou et al. 2007).

Donors have been discouraged from donating by the lack of customer service and lack of appreciation and recognition due to the increased regulation removing the focus from the donor to standard operating procedures and following regulations, and increased focus on lowering costs. Donors have been deferred by a false-positive test result without appropriate information or have been temporarily deferred and not encouraged to return by a certain date. Donors have also been deferred for lifestyle patterns of behaviour such as tattooing and body piercing that have discouraged the donor from donating permanently. Female Donors have also become anaemic due to the lack of appropriate education and male donors have also become anaemic through intensive recruitment, encouraged to donate excessively in order to maintain the supply of blood. Donors have also stopped donating because of inconvenient donor centres or inconvenient times of operations (Simon 2003).

In the USA donors also complained of feeling sick during or after donating blood, feeling dizzy and having deep set or difficult veins resulting in a painful experience. Donors also complained of been afraid of the needle despite attempting to donate and the dislike of the sight of blood (Schreiber et al. 2006).

5.4.2 *Deferrals*

Increased deferral rates that have occurred since 1983 due to new tests, new self-exclusion questions and new donor exclusions that were introduced to ensure the safety of the blood supply, as a direct result of the HIV/AIDS crises (Simon 2003), and in 2001 further new questions regarding Creutzfeldt-Jakob disease (Mathew et al. 2007) have decreased donor eligibility.

56% of the donor sample had been deferred previously in the donor's blood donation history; however 15% of the Lapsed donor sample reported that no reason was given for the deferral and 13% of the Lapsed donor sample was not informed as to the length of the deferral period.

37% of Lapsed donors do not return to donate blood because of a medical referral and failure of the donor centres to contact the donors to return to donated blood as indicated in Research Question 3.

The lack of appropriate information when donors were temporarily deferred for various reasons such as low iron levels or elevated blood pressure could result in donors not returning at the correct date. The lack of proper and personalised support by the transfusion service staff (Marantidou et al. 2007) especially towards first-time donors during the deferral period was also cited as reason for not returning on time to donate blood (Schreiber et al. 2006).

Health problems and fear seem to be a deterrent for some donors and prevents them from becoming regular repeat donors.

5.4.3 Importance of Incentives

In Greece 2.5% of donors admitted donating in order to earn paid leave from work and to receive free blood testing and 76.5% of blood donors stated that incentives to donate blood should exist. The donors suggested that these incentives should consist of future blood availability for themselves and their family, paid leave from work and free health tests such as cholesterol testing. Awards and small gifts with the blood transfusion service's logo on the gift tended to have a small impact and did not influence the donors to continue donating blood (Marantidou et al. 2007).

In Canada incentives have some value in recruiting new donors but did not have any value to the donor in maintaining a long term relationship with the blood transfusion service. This relationship was maintained by the awareness that blood is needed and thus altruism is reported as the most important reason for donating blood (Germain et al. 2007).

Where altruism and the perceived need for blood are the main motivational causes for donating blood, incentives do not appear to be the main reason people start donating blood, however it appears that donors do enjoy receiving gifts on the occasion as this makes them feel that their contribution is valued.

On average 30% to 40% of the donors whether the donor received a gift or not; and whether the donor was from the Lapsed donor sample or the Current donor sample, regarded the gift as important in the decision to donate blood regularly throughout the year, regarded the promotional gift as important in the decision

to donate blood and regarded the receiving of gifts as important in the process of blood donation. Translated this indicates that 1 out of every 3 donors regards the receiving of gifts as an important incentive to donate blood and to continue to donating blood.

Donors have requested petrol vouchers to ease the burden of paying for petrol to travel to donate at the donor centre. Ten donors have stopped donating because of the history of blood donors receiving “free blood” if the donor was a Current donor, this practice was deemed to be discriminatory and not financially ethical and thus was discontinued.

SANBS has a policy that all gifts must not be of a large monetary value in order to retain the safety of the blood supply and also all donors and potential donors including members of the public who are deferred are to receive a promotional gift at all promotional blood drives. Gifts issued in the past have had the SANBS logo on the gift and were mugs, pens, t-shirts, key rings, stress balls and other novelty items such as mirrors.

Annual gifts are issued if the donor has donated four times during the year and generally of a more substantial monetary value such as tog bags and cooler bags. In order to donate four times during one calendar year takes a level of commitment that is rewarded with a larger item of value.

Donors achieving milestone donations such as 50, 100, 150, etc donations receive medals, pen set and certificates in a celebration of achievement.

The policy of awarding donors “free blood” was discontinued in 1998 because of the discriminatory nature of the policy because not all members of the public can become donors due to the strict rules and regulations governing the acceptance criteria of people for blood donation. Certain lifestyles, medical conditions and high risk sexual behaviour exclude members of the public from becoming donors. Also it is good financial policy that all patients are billed for the blood and blood products received, patients who cannot afford to pay for the blood could have the service fee waived if this situation is discussed with the financial department of SANBS.

The WHO does not recommend that donors get remunerated for blood donated and South Africa has never implemented a payment policy since the implementation of a blood service in 1935. South Africa always has had a policy of blood to be obtained from non-remunerated voluntary donors as described in Section 5.2.3 of SOP-MLD-003 (SANBS 2005). This is a policy designed to protect the blood supply whereby donors who are paid for blood may be less than honest in the completion of the self-exclusion donor form and disclosure of relevant personal information.

5.4.4 Accessibility of Venues

Donors of the both samples expressed a wish to have longer opening times over weekends on Saturdays and Sundays. Currently the donor centres are open from 09:00 to 13:00 on Saturdays and are not open on Sundays. This is in line with the results from Research question 3 that indicates that the lack of time is one of the reasons why donors do not return to donate blood.

Donors have also expressed a wish to have the donor centres open for at least two evenings a week until 20:00 unlike the current situation where the donor centres close at 16:30 and at 19:00 on one evening per week.

In the USA, convenience was rated as the most important factor as a deterrent to blood donors, donors stating that there was no convenient place or the blood drive times were inconvenient for the donor to donate (Schreiber et al. 2006) (Marantidou et al. 2007). 18.1% of voluntary donors in Greece reported that the one of the reasons for the lack of return was time constraints. Other factors noted was that the distance to the location of the blood donor centre (Marantidou et al. 2007), lack of transportation, required time commitment and resultant time away from work if the donation site is away from the workplace (Schreiber et al. 2006).

5.5 Discussion pertaining to Research Question 3: What deters donor from donating blood

The deterrents to blood donors returning to donate blood were cited as bad

customer service, medical deferrals, failure to remind donor to donate, and lack of available time on the donor's part, having to pay for blood and poor venepunctures technique on the part of the donor centre staff members unable to find venous access in order to insert the needle.

Some donors reported that "free blood", money and suitable competent staff members would encourage the donors to return to donate blood. However 47% of the Lapsed donor sample reported that a return to donating blood would only be accomplished when the donor feels healthy enough to donate and 27% felt that demonstrations of appreciation such as a telephone call would be encouragement enough to return to donating blood.

5.6 Conclusion

In summary there appears to be many and varied reasons, similar in the countries reviewed why donors start to donate blood, altruism been the most important reason but that does not negate the influence of family, friends and peers in the workplace and at schools.

Why do donors continue to donate, convenience of site and time seems to be the most important reason, and incentives also seem to play an important role in retaining donors.

What deters blood donors from donating blood appears to be the inconvenience of the venue and the times of the blood drives, and the lack of a positive experience at the transfusion centre. These factors seem to be the most important deterrents to blood donors as well as poor customer service by the transfusion service.

Blood donors also stop donating blood when the awareness for the need and shortage of blood is not emphasised. When new regulations, new testing techniques and new deferral reasons are implemented there is also a loss of donors regarded as collateral loss, particularly when donors are deferred for medical reasons but are not reminded to return to donate blood.

6 CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

Conclusions to the study were discussed and thus extrapolating recommendations to the Corporate Marketing Department and the Zone Management are suggested.

Further recommendations on future studies are made in order to increase the knowledge in blood transfusion in the South African context.

6.2 Responses to Research Questions

In order to ensure balance between the supply of safe sufficient blood from donors and the increasing demand for blood and blood products due to increasing utilisation of medical procedures by an aging public populations, and increasing blood utilisation by anaemic patients receiving anti-retro viral drugs for HIV/AIDS, this study was undertaken to determine how to maintain the SANBS donor base without exhausting the blood donors through intensive blood donations. The study was undertaken to determine the critical success factors to the attraction and retention of blood donors by answering questions such as why the general public start donating blood, what keeps the current donors donating and why lapsed donors do not return to donate blood.

Understanding the reasons why donors continue to donate blood and why lapsed donors do not return to donate blood and implementing the recommended operational strategies, the donor / donation frequency could be increased from the current 1.9 donations per donor per year to at least 2.5 donations per donor per year.

In South Africa only 1% of the general population donate blood as compared to 5% of USA citizens who donate blood. If the recommendations suggested by the results of this study were to be implemented then the number of South African citizens could be increased and doubled to 2%, this would double the available units procured from 800,000 to 1,600,000 units of blood, more than

South Africa would need to supply the current demand of blood. However should the government implement a national medical aid policy as part of the National Health Policy then more of the public would have the funds available for more medical treatment and there would be a subsequent increase in demand for blood.

6.1.1 *Research Question 1: What determines why donors start to donate blood?*

The general public needs to become more aware of the need for an adequate blood supply and the needs of patients. This has been shown to be a motivating factor to get the general public to become blood donors.

The study has revealed that altruistic behaviour or a feeling of community is needed to galvanise the general public into becoming blood donors. The influencing factors of family, friends and peers must not be ignored and should be used in recruitment campaigns.

6.1.2 *Research Question 2: What determines donor frequency?*

Donors have also indicated that the convenience of donor centres and blood drives at convenient times is extremely important in the retention of blood donors. Donors and potential donors also enjoy receiving gifts of appreciation so that the donors feel valued for their contribution to the blood supply of the country.

6.1.3 *Research Question 3: What deters donors from donating blood?*

Lapsed donors have indicated that time constraints have prevented them from returning to donate blood as well as being deferred for medical reasons and not been healthy enough to return to donate blood.

6.3 Recommendations

Recruitment strategies are generally based on traditional strategies, personal

preference and anecdotal reports but very seldom on a scientific basis, thus this study provided scientific guidance on what determines why donors return and thus improved recruitment strategies (Reich et al. 2006).

Recommendations to the Corporate Marketing department is to segment the donors into age groups, sociodemographic profiles of been married or single, scholars or employees or employers, levels of education and numbers of donations and devise recruitment strategies around these demographics.

Recruitment strategies around age groups should involve various selective groups such as a Club for the under 25 year olds with recruitment material specific to the age group with health and lifestyle information pertaining to specific age group.

Recruitment strategies around marital status should focus on family issues for the married donors and lifestyle issues for the single donors in order to ensure a safe blood supply. Recruitment strategies should also focus on the areas where the families or single donors congregate.

A recruitment strategy around encouraging donors to improve their donor / donation frequency should also be implementing especially since the results of the research indicate that unless a donor gets past the tenth donation, the donor is more likely to stop donating. Gifts to encourage donors past this milestone are ideal incentives for the donors to work towards and thus to maintain a safe lifestyle.

Understanding the barriers to donation benefits the decision makers of the retention and operational strategies (Schreiber et al. 2006) and thus ensure a sufficient safe blood supply for the transfusion service as required in the SANBS mission statement. Recruitment strategies based on peer group pressure and incentives are effective in getting people started as blood donors. Donors are derived from the economically active population with most donor been employees of companies with a few been self-employed thus time constraints are the factors that prevent the donors from returning to donate. Donor centres must be open on the days more accessible to the donors, namely over the

weekends and at times more accessible for the donors, namely from 09:00 to 15:00. Work life and the poor economic world situation have increase the workload of employees as employers attempt to get more with less. Donors are generally more available over the weekends and this fact is recognised by the shopping centres and retail businesses as more and more shopping centres are extending the shopping hours over the weekends.

Successful blood donor retention programs are important in ensuring that there is a sufficient blood supply to meet the increasing demand for blood and blood products (Schlumpf et al. 2008). Identifying the barriers to blood donation that may prevent donors from returning to donate may be the same factors that may prevent the general public from becoming donors and thus identifying these factors which may be able to be addressed by the transfusion service in order to improve the blood supply by increasing collections (Schreiber et al. 2006).

Increasing rules and regulations in the requirements for a safe blood supply requires that the transfusion staff must be well trained in the acceptance criteria to ensure adequate explanations for the deferral reason and the deferral period required for full health recovery. Giving the donors documented information pertaining to the deferral period and return date is one way of ensuring that the donor will return to donate as will a telephone call at the end of the deferral period to inquire how the donors is and when can the donor return to donate blood.

6.4 Suggestions for further research

Further studies are needed to explore the reason why the South African Black population generally does not donate blood.

Further studies also need to be conducted on the recruitment strategies that could be implemented to attract and retain the Black, Coloured and Asian public as blood donors, as well as increasing the Black donor / donation frequency.

Further studies need to be conducted on the influence of the level of education on the retention of donors and whether members of the public with a Primary

level of education could be recruited and retained as blood donors.

Another study that should be conducted to determining the productivity level of the staff members with regards to the donation process time, what the optimal time for the donation process is and what is the optimal staffing required improving the donation experience.

An interesting study of blood donors would be to investigate the disparity between what blood donors say they will do and what they actually do, such as agreeing to attend a focus study group and not arriving at the appointed time, or agreeing to donate blood but not arriving to donate.

REFERENCES

- Creswell, J. (2003) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 2nd ed., Sage Publications, University of Nebraska, Lincoln.
- Germain, M., Glynn, S., Schreiber, G., Gelinas, S., King, M., Jones, M., Bethel, J. and Tu, Y. (2007) Determinants of return behavior: a comparison of current and lapsed donors, *Transfusion*, 47(10), p. 1862.
- Glynn, S., Williams, A., Nass, C., Bethel, J., Kessler, D., Scott, E., Fridey, J., Kleinman, S. and Schreiber, G. (2003) Attitudes toward blood donation incentives in the United States: implications for donor recruitment, *Transfusion*, 43(1), pp. 7-16.
- Harrington, M., Sweeney, M., Bailie, K., Morris, K., Kennedy, A., Boilson, A. and O'Riordan, J. (2007) What would encourage blood donation in Ireland?, *Vox Sanguinis*, 92(4), p. 361.
- Holbrook, M. and Hirschman, E. (1982) The experiential aspects of consumption: Consumer fantasies, feelings, and fun, *Journal of Consumer Research*, 9(2), p. 132.
- Jones, R., Prasad, V., Kuruvatti, J., Tahir, N., Whitaker, P., Dawson, A. and Williams, R. (2003) Remuneration for blood donation and attitudes towards blood donation and receipt in Leeds, *Transfusion Medicine*, 13(3), pp. 131-140.
- Kalof, L., Dan, A. and Dietz, T. (2008) 'Essentials of Social Research', In, Open University Press, pp. 119-137 and 156-164.
- Lehohla, P. (2007) Stats in Brief, 2007, In Statistics (ed.), 2007 ed., Statistics South Africa, Pretoria.
- Marantidou, O., Loukopoulou, L., Zervou, E., Matinis, G., Egglezou, A., Fountouli, P., Dimoxenous, P., Parara, M., Gavalaki, M. and Maniatis, A. (2007) Factors that motivate and hinder blood donation in Greece, *Transfusion Medicine*, 17(6), pp. 443-450.
- Mathew, S., King, M., Glynn, S., Dietz, S., Caswell, S. and Schreiber, G. (2007) Opinions about donating blood among those who never gave and those who stopped: a focus group assessment, *Transfusion*, 47(4), pp. 729-

735.

Misje, A., Bosnes, V., Gasdal, O. and Heier, H. (2005) Motivation, recruitment and retention of voluntary non-remunerated blood donors: a survey-based questionnaire study, *Vox Sanguinis*, 89(4), p. 236.

Nelson, P. (1970) Information and consumer behavior, *Journal of political economy*, 78(2), p. 311.

Newman, B. (2004) Adjusting our management of female blood donors: the key to an adequate blood supply, *Transfusion*, 44(4), p. 591.

Reich, P., Roberts, P., Laabs, N., Chinn, A., McEvoy, P., Hirschler, N. and Murphy, E. (2006) A randomized trial of blood donor recruitment strategies, *Transfusion*, 46(7), p. 1090.

SANBS (2005) Blood Safety Procedure (Medical),

Sargeant, A. (2001) Managing donor defection: Why should donors stop giving?, *New Directions for Philanthropic Fundraising*, 2001(32), pp. 59-74.

Schlumpf, K., Glynn, S., Schreiber, G., Wright, D., Randolph Steele, W., Tu, Y., Hermansen, S., Higgins, M., Garratty, G. and Murphy, E. (2008) Factors influencing donor return, *Transfusion*, 48(2), pp. 264-272.

Schreiber, G., Sanchez, A., Glynn, S. and Wright, D. (2003) Increasing blood availability by changing donation patterns, *Transfusion*, 43(5), pp. 591-597.

Schreiber, G., Schlumpf, K., Glynn, S., Wright, D., Tu, Y., King, M., Higgins, M., Kessler, D., Gilcher, R. and Nass, C. (2006) Convenience, the bane of our existence, and other barriers to donating, *Transfusion*, 46(4), pp. 545-553.

Simon, T. (2003) Where have all the donors gone? A personal reflection on the crisis in America's volunteer blood program, *Transfusion*, 43(2), pp. 273-279.

Sirgy, M. (1982) Self-concept in consumer behavior: A critical review, *Journal of Consumer Research*, 9(3), p. 287.

Tison, G., Liu, C., Ren, F., Nelson, K. and Shan, H. (2007) Influences of general and traditional Chinese beliefs on the decision to donate blood among employer-organized and volunteer donors in Beijing, China, *Transfusion*, 47(10), pp. 1871-1879.

WHO (1975) *Voluntary Blood Donation*, last accessed 7th March 2010, 2010, from http://www.who.int/bloodsafety/voluntary_donation/en/.

APPENDIX A

Survey Questionnaire

In this section there are three documents:

- The notice to the donor requesting their participation in the survey with a letter of explanation and contact details for further information
- Interview Guide
- The Survey Questionnaire



Association Incorporated Under Section 21
Registration No. 2000/026390/08

Dear (Name of donor to be merged to document)

The South African National Blood Service (SANBS) is committed to be a centre of excellence in the provision of blood products and services to patients.

As a centre of excellence SANBS is committed to continuous improvement thorough innovation, creativity and research and thus encourages feedback from blood donors in order to find a more effective and efficient way to improve the SANBS donation experience.

I am doing research for the completion of my MBA at the Wits Business School. The title of my research project is “the critical success factors for the retention of blood donors in South Africa” and I am inviting you to participate in the survey that I am conducting.

The survey in the form of questions will be to identify the reasons donors start and continue to donate blood; identify what deters donors from donating blood and What stop donors from donating blood.

If you are willing to participate in the survey the Telerecruiting department will be contacting you shortly to make an appointment with you in order to conduct the survey. If you have any questions you may contact me at 082 467-8408.

Many thanks in anticipation of your participation,

Yours sincerely,

Delene Duncan

Egoli Zone Donor Services Manager

South African National Blood Service

Interview Guide

(Tison, Liu, Ren, Nelson and Shan 2007)

- Telerecruiters will be trained in use of the research instrument.
- The Telerecruiters will introduce themselves and inform the donor where they are calling from.
- An explanation will be given to the donors regarding the purpose of the research: Delene Duncan, the Zone Donor Services Manager is doing a research project for the completion of her MBA at the Wits Business School. The title of her research project is “the critical success factors for the retention of blood donors in South Africa” and she is inviting you to participate in the survey that she is conducting.
 - The questions will be in reference to:
 - Identify the reasons donors continue to donate blood;
 - Identify what deters donors from donating blood;
 - What stop donors from donating blood.
- Donors will be informed that participation is voluntary.
- Donors must be given assurances of confidentiality regarding any answers to the questions
- No personal identifying information will be collected other than donor number initially to correlate that all selected donors have been contacted and then the number will be removed from the spreadsheet. No information supplied in the survey will be updated onto the donor's donation record.

Survey Questionnaire for “The Critical Success Factors for the Retention of Blood Donors in South Africa”.

Section A: Demographics – information on database

Donor Number:		Donor Status:	Repeat current donors / Lapsed
Age:		Gender:	Male / Female
Ethnic:	White / Black Coloured / Asian	Date of last donation:	
Blood Group:	A / B / O	Number of donations:	

🔴 Demographic Data Unknown:

Marital Status:	Single Married Living together Separated Divorced Widowed
------------------------	--

Level of Education:	Primary Secondary Tertiary
Employment Status:	Employee Self-employed Retired Student Looking after home Unemployed

Section B: Motivators to donate blood

🔴 Personal transfusion experience:

Have you or anyone close to you ever received a blood transfusion?	
--	--

🔴 Perceived need for blood:

Do you feel that in South Africa there is enough blood available for those who need it?	
Have you ever seen or heard an advertising campaign for blood donation?	

Would advertising encourage you to donate blood?	
--	--

♦ Altruistic Behaviour:

Have you ever given directions to a stranger?	
Given money to charity?	
Given money to a stranger who asked for it?	
Donated goods or clothes for a charity?	
Done volunteer work for a charity?	

♦ Having been asked to donate:

Where did you first hear about blood donation?	Advertising Parents Work School University Friends Other:
--	---

What made you start donating blood?	
Before your last donation, did you receive any request to come and donate blood?	SMS / Email / Telephone / Mail Other:

Section C: Deterrents to donate blood

🔴 Satisfaction with last donation:

Were you glad you donated?	
Were you nervous or scared about your last donation?	
How would you rate the way you were treated by the staff?	1. Extremely satisfied 2. Satisfied 3. Neutral 4. Dissatisfied 5. Extremely Dissatisfied
How would you rate the skill of the staff?	1. Exceptionally Competent 2. Competent 3. Neutral 4. Incompetent 5. Totally Incompetent

How would you rate how you physically felt during and after your donation?	1. Very Good 2. Good 3. Fine 4. Nauseous and or Dizzy 5. Faint
How would you rate the level of privacy during the interview process?	1. Totally Private 2. Suitably Private 3. Some Privacy 4. Not much Privacy 5. Absolutely no Privacy
How much time do you reasonably expect to spend at the donation clinic?	1. less than 25 minutes 2. 25 – 30 minutes 3. 30 – 35 minutes 4. 35 - 40 minutes 5. greater than 40 minutes
How would you rate your overall donation experience?	Positive / Negative / Neutral

🔴 Previous deferrals:

Have you been deferred previously?	
------------------------------------	--

Did you receive enough information regarding your deferral?	
Where you told when you could return to donate again?	

🔴 Importance of incentives:

Have you ever received a gift for donating four times during the year?	
How important in your decision to donate blood would you rate the yearly gift?	1. Unimportant 2. Of some importance 3. Important 4. Very Important 5. Critically Important
How important do you rate promotional gifts in your decision to donate blood?	1. Unimportant 2. Of some importance 3. Important 4. Very Important 5. Critically Important

How important do you rate the giving of a gift to donors?	1. Unimportant 2. Of some importance 3. Important 4. Very Important 5. Critically Important
What kind of gifts or incentives do you feel should be offered to donors?	

🔴 Ease of access to donation sites:

What venue do you normally donate blood at?	Mobile blood drive School Workplace Donor centre Community centre Shopping centre Yearly event Other:
Do you find the venue convenient?	

Do you find the day of the blood drive convenient?	Mon / Tue / Wed / Thu / Fri / Sat / Sun / can't remember day of week
For your donation site what day of the week would you suggest for a blood drive?	Mon / Tue / Wed / Thu / Fri / Sat / Sun
Do you find the time of the blood drive convenient?	
For your donation site what times would you suggest?	

Section D: Why donors have stopped donating blood

🔴 No longer donating blood – for lapsed donors only:

Why have you not continued to donate blood?	
What would encourage you to return to donate blood if you were able to?	