# Modern Blood Banking in India: A Study of Prathama Blood Centre

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## The Study

The shortage of blood in the country remains a big question in our Indian society. Unlike western countries, voluntary blood donations in the country reflect abysmal figures. Some modern blood banks in the country have arisen and have come a long way in filling this gap and improving the awareness and importance of voluntary blood donations.

One such case is that of India's largest modern blood bank, Prathama Blood Centre of Ahmedabad. They have the largest facility in the country with the latest technology which helps in *componentalisation* of blood into different parts which are used in varied indications. The bank is against replacement during blood distribution unlike the reputation of other blood banks or related organizations. Prathama is also the first bank to introduce the concept of *societal marketing* in blood banking in the country. Overall, it is claimed that their activities are commendable as they are doing a great service to the society.

Those who organize and distribute blood for the needy are doing a commendable job. They are doing for a noble cause. However, over the years the very noble cause has taken a commercial turn as perceived by the general public. Today the public perception is that in the name of a good cause such organizations are making money.

There are certain sections of the public who are skeptical about the activities of blood banks including Prathama. It is believed that the entire process is commercialized and there is not much to talk about their profound services.

In this light, this paper is an attempt to highlight the current state of blood banking in the country with a focus on the operations of Prathama Blood Centre, India's biggest & most modern blood bank. The objective of the study was to find out about peoples' perceptions about the process of blood donation, blood banks and in particular Prathama Blood bank. To achieve the objective, we met the top management team at Prathama and few people who have worked with Prathama or other blood banks too. We also carried out an opinion survey of people in Ahmedabad & Gandhinagar besides a secondary research.

## What is blood donation?

It is a process by which an individual voluntarily has blood drawn for storage in a blood bank or for subsequent use in a blood transfusion. The individual in this case would be referred to as a blood donor.

Blood donations may be scheduled at local centres, or at times a "drive" is inititated to collect blood. These are events where a blood bank will set up in a convenient location for people to approach without appointment during their daily routine to donate blood. Sometimes a blood mobile van is used to run a blood drive. Usually a modified large vehicle (for example, a bus), it is an easy place to run a blood drive because it is already set up for the process of blood donation. Many blood banks have several blood-mobiles so they can serve many people at once.

The process of giving blood involves screening the donor, then the actual donation, and a recovery period of short duration. This applies to both whole blood donations and *plasmapheresis* (donating only one's plasma). As far as storage is concerned, Cryopreservation of red blood cells is done to store special, rare red blood cells for up to 10 years. The cells are first incubated in a 40% glycerol solution which acts as a cryoprotectant or what is known as "antifreeze" within the cells. The units are then placed in special sterile containers in a deep freezer at a sub-zero temperature of -60°C.

There are several benefits to the individual who is donating blood. It is said that it may reduce the risk of heart disease for men and stimulate the generation of red blood cells. This is authenticated

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by the Canadian Paediatric Society. In patients prone to iron overload (e.g. due to hemochromatosis), blood donation prevents the accumulation of iron. The amount of toxic chemicals (e.g. mercury, pesticides, fire retardants) circulating in the blood stream is reduced by the amount contained in given blood. Anecdotally, elderly people in good health have reported feeling invigorated by giving blood on a regular basis. An individual who anticipates the need for a blood transfusion at a later date (usually because of scheduled surgery) can make an autologous donation, in which the blood is stored and later transfused back into its original donor. Besides ensuring the availability of compatible blood, especially important for patients with rare blood types, such a procedure also eliminates the risk of transmitting disease from infected donors.

**What are blood banks?**

A blood bank is a cache of blood or blood components, brought about as a result of blood donation. They are stored and preserved for later use in blood transfusions.

It was in 1915 an institition was started by Richard Lewison of Mount Sinai Hospital, New York, initiating the use of sodium citrate as an anticoagulant. This actually led to the development and establishment of blood banks. This discovery transformed the blood transfusion procedure from direct (vein-to-vein) to indirect. In the same year, Richard Weil demonstrated the feasibility of refrigerated storage of anticoagulated blood. The introduction of a citrate-glucose solution by Francis Peyton Rous and JR Turner two years later permitted storage of blood in containers for several days. This path-breaking actually led to the opening of the first "blood depot" established in Britain during the World War I. Oswald Hope Robertson, a medical researcher and U.S. Army officer during that time who established the depots, is now recognized as the creator of the first blood bank.

By the mid-1930s, the former Soviet Union had set up least sixty large blood centers and more than 500 subsidiaries. They stored "canned" blood and shiped it to all corners of the country. America came to know about this Soviet experience where in 1937 one Bernard Fantus, director of therapeutics at the Cook County Hospital in Chicago, inspired by the Soviets established the first hospital blood bank. The establishment of a hospital laboratory that preserved and stored blood led Fantus to originate the term "blood bank." Within a few years, hospital and blood banks were established across America.

An important breakthrough came in 1939-40 when Karl Landsteiner, Alex Wiener, Philip Levine, and R.E. Stetson discovered the Rh blood group system. It was found to be the cause of the majority of transfusion reactions up to that time. In 1942-43, J.F. Loutit and Patrick L. Mollison introduced acid citrate dextrose (ACD) solution, which reduces the volume of anticoagulant. This permitted greater volumes of transfusions and created longer storage life.

It was Carl Walter and W.P. Murphy, Jr., who introduced the plastic bag for blood collection in 1950. It replaced breakable glass bottles allowing for the evolution of a collection system capable of safe and easy preparation of multiple blood components.

Introduce in 1979, it was meant to extend the shelf life of stored blood. It was an anticoagulant preservative, CPDA-1. It increased the blood supply and facilitated resource sharing among blood banks. Freezing of Red Blood Cells is done by combining them with a solution of glycerol to prevent ice crystal formation. And as such frozen Red Blood Cells have a stated shelf life of ten years. The down side of frozen blood cells is that the process is expensive and time-consuming. Very few blood banks maintain such stocks.

**General Perceptions & Myths**

Those who organize and distribute blood for the needy are doing a noble job. It is a great cause to save lives. However, over the years the very noble cause has taken a commercial turn as perceived by the general public. Today the public perception is that in the name of a good cause such organizations (Blood Banks) are making money.

As far as blood donation itself is concerned a common misperception is that giving blood hurts or takes too long. When such misperceptions of the public get reinforced, it might be difficult for the blood banks to generate storage of blood and thereby affecting supply. This will affect enough donations to meet the needs of blood transfusion thereby creating the biggest challenge of communicating the need for blood.

Generally, in any case, few people actually think about giving blood. Unfortunately most of the people don't think about the need for blood donations until a family member or loved one needs it. People are so busy and have so many commitments in their daily lives that time is also another great challenge to blood bank organizations.

If such misperceptions about blood banks exist then they have to start working on it and be more flexible by making it more convenient for donors to give blood. To remove the growing misperceptions of the public, blood banks should through a media blitzkrieg emphasize on how their organizations play a vital role in the life-saving process.

The only way to ward off misperceptions of the public is to educate them through a conscious and sustained effort of removing myths and misconceptions of blood donation itself. Common myths about blood donation are listed below:

- Someone else will donate all the blood that's needed.
- It hurts.
- I don't have time.
- Blood banks ask embarrassing questions.
- I might get infected from donating.
- I take medication, so I can't donate.
- I'm too old.
- I'm too young.
- It will make me weak.

Blood donations are used daily in hospitals. Each day, patients need blood transfusions because of accidents, cancer, surgery, burns, childbirth and other situations. Yet, misunderstandings and fears often prevent people from donating much-needed blood that could save someone's life. Blood cannot be manufactured. The only way for hospitals to keep their blood banks full is through volunteer donors. Donated blood has a limited shelf life, so new donations of all blood types are needed every day.

The common myths that discourage potential donors can be handled through, as said before, visible campaigns and a media blitzkrieg. Each of the common myths must be countered with the reality of things. The reality of the myths is explained as follows:

**Myth 1:** Someone else will donate all the blood that's needed.
**Reality 1:** If only it were true. Although approximately 60% of the population qualifies to donate blood, less than 5% actually do so.

**Myth 2: It hurts.**
**Reality 2:** It may hurt a little. But far less than getting, say, your ears pierced. Donating blood hurts a lot less than having someone you care about need blood and not get it because it's not there.

**Myth 3: I don't have time.**
**Reality 3:** It doesn't take long: about 45 minutes in all from arrival to departure and just 10 minutes to draw the blood. Most other large employers allow employees to donate on company time. Most employers understand the importance of supporting the blood supply on which patients depend, and even encourage employees to take advantage of this.

**Myth 4: Blood banks ask embarrassing questions.**
**Reality 4:** Some of the questions are personal, but they have to be. The screening personnel are very professional and are not judgmental. Their only goal is to ensure a safe blood supply for patients and a safe donation experience for the donors.

**Myth 5: I might get infected from donating.**
**Reality 5:** Donations are drawn using sterile equipment that is disposed of after a single use. At no time a donor will come in contact with any piece of equipment or material that has had contact with someone else's blood or body fluids.

**Myth 6: I take medication, so I can't donate.**
**Reality 6:** Most people taking blood pressure medication and those with diabetes can donate blood without a problem.

**Myth 7: I'm too old / I'm too young.**
**Reality 7:** There is no longer an upper age limit for donation. So long as the donor is healthy and weigh at least 50 KGs, he/she can continue to donate as a lifelong contributor. Donor must be at least 17 years of age, healthy and weigh at least 50 KGs, to make a real grown-up contribution.

**Myth 8: It will make me weak.**
**Reality 8:** Most adults have 5 to 6.5 liters of blood in their bodies. Donors will feel little or no effect after donating half a liter (500 ml) of blood.

**Myths & Perceptions in India**

The voluntary donations in south East Asia including India are shown in figure 1. of appendix which suggests that more than 40% of blood donations in India are voluntary. In comparison, a blood bank like Prathama collects blood through 100% voluntary blood donations. 1854 blood banks in India collect 6 million units of blood each year according to a WHO report (refer table 2 in appendix)
In spite of considerable awareness in India, blood transfusion services suffer from inadequate political commitment, priority, fragmentation and lack of resources. Myths and lack of information amongst communities prevent a large number of people to donate blood. Human resource managing blood transfusion services are inadequate in number and lack training on recent concepts of blood safety.
Although this paper will be looking into the misperceptions of the public regarding blood banks and blood donations through a survey, as far as India is concerned such misperceptions about the same does exist and blood banks have to start working on it and be more flexible by making it more convenient for donors to give blood. In fact an awareness programme on voluntary blood donation has already been organized by the Voluntary Blood Donors' Association, New Delhi, at the Perfect Health Mela, Red Fort Grounds, New Delhi in October 2000. Quiz programmes, film shows, blood group testing, etc. were organized during the programme.
The basic aim was to motivate people to donate blood voluntarily by disseminating the relevant scientific information and helping them overcome the unscientific beliefs associated with blood donation. Two training workshops to train motivators for promoting voluntary blood donation were organized in the programme. Some 50 volunteers from blood banks, NGOs, Red Cross societies, Rotary and Lions Clubs, Govt. blood banks, etc. participated in each of the workshops.
Similar awareness programs were also held in Lucknow and quick studies on the status of blood donation were completed in Agra, Faridabad and Rohtak. The studies aim at understanding the gap between supply and demand of blood in these cities. Surveys were also carried out to study the factors inhibiting the voluntary blood donation and myths prevailing in society, on this issue. Surveys for Jammu & Srinagar are in the pipeline.
In Lucknow, the Indian Medical Association (IMA) had organized a blood donation camp in its premises on October 1, 2005 and tried to create awareness among the public to discard myths about voluntary blood donation.
In this camp, doctors concluded that only three per cent patients benefited from voluntary blood donation at the national level. The rest is managed by the exchange process or by professional donors. The doctors stated that this was a critical situation. A popular myth was discarded by

emphasizing on the fact that weakness was not caused by donating blood as the body creates new blood cells continuously. Besides, blood can be donated every three months. The doctors were of the view and also agreed that there are hazards of professional blood donation, like getting infected of Hepatitis and HIV, which makes voluntary blood donation all the more important.

**Prathama Blood Centre**

***Genesis***

The state of blood banks in India led to the genesis of Prathama Blood Centre. Blood banks in India were characterized with the following features:

1. Small scale in terms of operation, poor infrastructure, economically unstable and lack of hygiene.
2. Acute shortage of blood and dependence on replacement donors.
3. No awareness and use of blood components.
4. Part of the hospital.
5. No concept of Societal Marketing.
6. Mistrust and corruption related image.
7. Lack of Management systems and expertise.
8. Quality of testing questionable.

Based on the above gaps, the objective of Prathama Blood Centre was set with the mission to set up a blood bank for the city of Ahmedabad & its vicinity, which will meet the requirement of *safe* blood components of assured quality, at all the times, to every needy patient, only through *voluntary* blood donors and *not through replacement*.

Prathama Blood Centre is the result of ATRMF (Advanced Transfusion Medicine Research Foundation), a not for profit, section 25 company which also happens to be a trust. Prathama was conceptualized in the late 90s to cater to social issues and help modernise the blood banking infrastructure in India. The Ahmedabad Municipal Corporation gives this plot to ATMRF on 99 year lease basis. For the patients admitted in the Municipal Corporation Hospital, the blood components will have to be provided at discount of 30% than the rates for normal patients and for a poor patient of Ahmedabad Municipal Corporation's hospital blood components upto the extent of 10% should be provided free of charge.

Prathama was planned to provide adequate and rugged infrastructure to enable collection, process and distribution of 50,000 units of blood per annum. The blood centre has been designed to expand in a modular manner to collect process and distribute 1.50,000 units of blood per annum. The objective was to create a modern blood bank, which operates with efficiency, accuracy of the modern blood banks in the developed countries, but still at the cost which a developing countries economy can meet. The blood centre should also produce very high quality blood components at cost very similar to the blood units, which were available in India. All such objectives paved way for the creation of Prathama Blood Centre costing Rs.7.5 crores with the final products to cost anywhere between Rs.450/- to Rs.650/- (refer table 1 in appendix). This required indigenous design and development of technology and systems. For example, Prathama has its own customized ERP based system called Vyan. This system integrates various processes within the organization for better and faster work. All modules including that of blood donor information, Marketing, HRM have been integrated by this unique system.

***A Special word on Prathama's Inspiring Infrastructure***

Providing services for blood collection, storage and research, Prathama Blood Centre in Ahmedabad, regional capital of Gujarat, attracted the jurors' attention as an example of a large and quite complex building in the developing world. Designed by local practice Matharoo Associates (whose Kahnian crematorium featured in the 2003 awards cycle, AR December 2003), the blood centre is conceived as a pioneering new type of health building (*prathama* means 'First' in Sanskrit) that combines sophisticated laboratory and testing facilities with an enlightened, humanistic approach. The centre is the outcome of a competition staged by a charitable trust with the aim of recasting and restaging the act of blood donation in a more inviting public domain, so

mitigating the fear and repulsion subconsciously associated with such public spiritedness. The new building can store and process 200 000 units of blood, making it the largest blood bank in India. Donations are entirely voluntary, and the centre's on-site facilities are backed up by a fleet of mobile collection units. Despite the programme's ambitions, the budget was parsimonious ($200 per sqm, including. t out and site development). Costs were kept in check by custom designing and locally fabricating internal elements such as doors, windows, modular furniture, partitions and work stations. Even so, Matharoo Associates have succeeded in making a building that has an evident decency and dignity. A four-storey glass-clad stack of laboratories intersects roughly at right angles with a hermetic concrete volume housing administration and support services. Between these clearly articulated functional elements is a more free-form atrium space, created by stretching and curving the concrete wall. Contained within this concrete skin at ground level are user-friendly enclaves for blood collection (separated from the more clinical blocks), so that people can just wander in and make a donation. To encourage a regular throughput of donors, there are none of the formalities and inhibitions of a formal hospital setting. Helping to soothe nerves, the donation suite overlooks a tranquil reflecting pool, while within the atrium there are views and glimpses through to the more specialised laboratory spaces, communicating a sense of the building's gravitas and wider social purpose. Refer figures 1-4 in appendix.

***Highlights***

They have a well-balanced rugged infrastructure to support operations of blood collection, blood processing and blood distribution. These 3 functions are well supported by an inspiringly designed space, equipment, trained personnel, and systems besides a good culture. Refer table

100% componentisation of blood: At Prathama, whole blood is separated into components - thus ensuring that the patient gets only that component which he/she needs. This means that with every unit of blood collected Prathama is able to fulfill the requirements of 4 different patients.

100% voluntary donation - Prathama is mandated to give blood to whoever needs it, whenever they need, there is absolutely no replacement requirement. This unique feature (Prathama is the only blood bank that can justifiably claim that it accepts only voluntary donations) has given rise to a Social Marketing initiative, through which Prathama is engaged in mass awareness campaigns. There is also a focused effort to develop repeat donors as repeat donations enrich the quality of blood. In the long run, Prathama Blood Centre aims to be an integral part of Ahmedabad and its milieu. Prathama feels that the Citizens of Ahmedabad should believe they own it and consider it is one of their social responsibilities to donate blood at Prathama, and use its facilities whenever they are in need.

Prathama is the pioneer of *Societal Marketing* in blood banking in India. As a part of its Social Marketing initiatives, Prathama is extensively involved in doctor awareness through its CME programmes. Prathama is a pioneer in the area of blood components and is making every effort to generate greater clarity and knowledge about the benefits of using components in the medical community. Prathama has a team of donor consultants who visit organizations, institutions, different segments of the society and are engaged in campaigning and collection of blood. Prathama also has a call centre which interacts with past donors and arranges mobile van drives i.e. use of ultra modern blood mobile vans in different parts of the city and state. The call centre also keys in new donors in the existing list of donors besides handing grievances. Prathama also has its own in -house studio which designs posters, stickers, banners based on specific themes related to blood campaigning. Prathama also offers door step delivery services. In case of emergency, a team of service providers pick up blood samples, and deliver the products to the patients.

At Prathama, safety is paramount. Because blood is accepted only from voluntary donors, the risk factor is considerably reduced. To further ensure the safety of blood, they have invested in state of the art machines that check for every conceivable contamination and disease. With their infrastructure and rigorous testing procedure, every recipient is sure that the blood he/she receives

is 100% safe. As a part of its efforts to modernise blood banking, Prathama has invested in robotic testing facilities, a real time fully integrated computer network, ERP software and bar code system. It is the largest blood bank of the country, with the infrastructure and technical capability to process 300,000 units per annum.

Although professional, Prathama is a 'not for profit' organization. Moderate service charge, as per Govt. guidelines is taken to sustain the cost of operation, raw materials, testing, etc. This service charge is standardized, with no hidden cost whatsoever. There are special commitments for poor patients, Haemophilliacs & Thalassaemic patients. The blood centre is a 24 hrs-365 days open blood centre and serves the society round the clock. Prathama has been involved in promoting voluntary blood donation right from its inception. The demand for blood has been very high among patients suffering from haemophilia and thalassaemia. Nowadays, Prathama also provides 70 to 75 platelets everyday required for countering dengue, as this disease, too, has spread across the city.

At Prathama, professionals from different facets like medical, management, finance, IT, creative arts, HR, etc. have come together with the vision to contribute towards blood banking in India, offer quality with affordability in providing safe blood components and services to patients, free of cost, actively promote blood donation as a social responsibility of every healthy individual and contribute to our discipline through research, education and development of human resource and be amongst the most renowned centres of transfusion medicine in the world.

Today, Prathama is the largest blood bank in India and is a model blood bank in Ahmedabad having collected blood from nearly 2.0 lakh donors and has distributed more than 3.0 lakh blood components serving more than 1.5 lakh patients in the process. Prathama is also involved in extensive research in the field of blood related disorders and optimal uitlisation of human blood. Prathama is classified as a "Transfusion Medicine Centre" as assigned 'Grade A' by CRISIL. Prathama also conducts DNB program.

***Future Outlook***

In a large country like India, efficient blood banking requires around 30-40 big regional blood centres. Prathama aims to facilitate the setting up of Modern Regional Blood Centres that are truly world class, economical and provide safe blood components to meet the requirements of blood of the entire region. The need is to set up a nation wide network of regional blood centres, that are capable of collecting, processing, testing, storing and distributing 1,00,000 to 5,00,000 units of blood per annum. The location of the Regional Blood Centres depends on the population and geographic distribution of its healthcare cities. The regional centres would be supplemented by satellite blood centers in the surrounding towns

**An Opinion Survey**

We asked people in general to peep into the peoples' perceptions about blood donation and the state of blood banks, and their view and/or experience with the Prathama Blood Centre. Some details of the qualitative probe are as follows:

Problem statement

What is the opinion/perception of public in general about i) Blood Donations ii) About Blood Banks, and iii) About Prathama Blood Bank.

***Objective/s***

To find out about people's perceptions with regard to blood donation and blood banks in general and Prathama Blood bank in particular.

***Methodology***

We carried out qualitative research through opinion survey of people in Ahmedabad and Gandhinagar by interacting with them.

***Sample***

Our sample was convenience based covering 64 respondents.

***Sample profile***

Respondents constituted people who have donated and not donated blood from the cities of Ahmedabad & Gandhinagar.

***Findings & Interpretations***

*Blood Donations*

Interestingly, though all of the respondents were aware of blood donations, only 31% of them had donated blood before.

Many (59%) of the respondents interviewed had a positive notion about blood donations. Some of the distinct responses about blood donations were as follows:

1. "Donating Blood is for a noble cause"
2. "Good practice as if benefits another person"
3. "Blood donation leaves you with a satisfying experience"
4. "Blood donation best describes give & take practice"
5. "It inculcates social responsibility amongst the Indian youth"
6. "It is helpful in networking in the social arena"

There were some (24%) who had concerns with regard to blood donations. Some of the prominent concerns with regard to blood donations are as follows:

1. Health concerns because of perception of lack of hygiene.
2. Fear of needle prick.
3. Social Taboo.
4. Mistrust of proper utilization of blood donated.
5. Lack of awareness about benefits of blood donation like regeneration of blood.
6. Not happy about the policy of replacement.

Most of the respondents perceive blood donations as a noble activity which is highly beneficial to the society. On the flip side, it was also found that many of the respondents have either not donated blood or donated it only during the time of emergency. The implications of the probe suggest that not many look up to blood donations as a voluntary pursuit and there still exists myths about blood donations. So the role of modern blood banking through players like Prathama blood centre which promotes the awareness of blood donation becomes extremely critical.

Consider this hard fact; in Gujarat state, the supply of blood is only $1/6^{th}$ of the total demand in a year (Prathama, 2007).

*Blood Banks*

A significant number of respondents (77%) were of the view that blood banks are engaged in profit-making.

This is contrary to the fact that the blood banking sector is in "not for profit" segment-the reason why very little investments and efforts have come to blood banking. It is believed that only charitable institutes must get into the activity of blood banking. This makes blood banking a very delicate social industry which entirely depends on social funding and contribution of blood (Prathama, 2007).

Very few (22%) believe that the blood banks were doing a yeomen service to the society in terms of those who are in need of blood.

The advent of blood banks in India has not been easy as the perceptions itself indicate. Although our study is not all-India based, the fact that various organizations like the Voluntary Blood Donors' Association and the Indian Medical Association (IMA), to name a few, have conducted various awareness campaigns about blood donations & blood banks itself indicates the skewed perceptions of the public about the same.

Some of the common perceptions about blood banks are:

1. "Activities are not morally related"
2. "Discrimination against rich & poor"
3. "Most of them ask for replacements"
4. "Few are good…most of them are bad"
5. "Doubtful activities"
6. "Profit-making…commercial"

From the findings, we infer that the public don't have a positive outlook about blood banks. This should surely make blood banking difficult.

*Prathama Blood Centre*

Not many know that Ahmedabad is the home of India's largest and most modern blood bank, Prathama blood centre. But most of the respondents (92%) are aware of Prathama as a blood bank. Some of the interesting quotes arising from the respondents are as follows:

1. "In time of emergency, Prathama showed promptness"
2. "Prathama is well-managed, professional & ethically making money"
3. "Prathama denied supply of blood during need "
4. "Prathama is a profit-making organization"
5. "Prathama is doing good for the society and not making money"
6. "Prathama building looks like a five star hotel, their mobile vans appear like designer vehicles...Prathama blood bank is making a lot of money and could put vampires to shame!"

There seems to be a paradox arising from the opinion of the respondents about Prathama. On one hand, most of them (72%) feel that Prathama is very professional & well managed especially through its marketing activities echoed by its dedicated campaigning in institutions, organizations, clubs, societies, etc and mobile blood van operations in the city, and on the other hand, majority of the respondents (84%) feel that Prathama is a money making blood bank with high profit orientation.

Only 2 respondents were of the opinion that Prathama is a modern and professional blood bank with the motive or serving the society by creating awareness and engaging in collection & distribution of blood through the right technology.

Prathama through its professional approach and in some cases i.e. through personal experience is facing an image crisis. In spite of being a "not for profit"

Organization, it has a "profit making image". In some cases, past donors have gone through a bad experience in the case of emergency. We assume that there could have been a genuine shortage of blood components, but the treatment given to the donor raises questions & doubts about its image and evokes mistrust for Prathama.

**Final Comments**

From our study based on personal experience, secondary research and an opinion survey, we have arrived at the following points:

While developed countries with advanced healthcare systems collect blood equivalent to 5 to 10% of their population, with less than 0.6% of its population donating blood, India lacks far behind (Prathama, 2007)

The second largest country in the world, India in terms of population collects around 6 million units of blood in an year with over 40% of the donations being voluntary (Bhatia, 2005).

Protection of a country's blood supply is of critical importance. Recent effort has been devoted to prevent the transfusion transmission of immunodeficiency virus 1 (HIV-1), hepatitis C virus (HCV), and hepatitis B virus (HBV) [1-4]. Such effort is especially important in India where the prevalence of these infections in high and the risk of transfusion transmission continues to increase. India has the second largest number of people living with AIDS in the world [5-7]. Currently the seroprevalences of anti-HIV-1, anti-HCV, and HBsAg in Indian blood donors are 0.3%, 0.4%, and 0.99%, respectively (Sharma, 2004).

Another challenge for Indian blood safety is the lack of standardized screening in the approximately 1850 licensed blood collection centers, operated both privately and by the government which implies that the lack of awareness of safe blood in the country.

Gujarat ranks second in the country in terms of voluntary blood donations with share of volunteers being over 65% in the total blood collections. Gujarat's proactive approach to blood

no doubt contributes to its handling of sensitive issues like HIV epidemic. In addition to the measures above, modernization of blood banks in government and voluntary sectors and the supply of free HIV testing kits have been undertaken. Of the total 162 blood banks in the state, 75 have been supplied with free HIV and Hepatitis C detection kits and 57 with modern equip-ment and financial support.

Easy and prompt availability of safe blood is extremely rare in India. Surprisingly, Ahmedabad is rated best in this parameter.

All across the country usually witness a struggling situation when the demand for blood rises, especially in the cases of emergency and natural disasters. Blood donation isn't very popular in our society, primary reason for the same being the common myths prevalent as discussed in our research.

According to a research carried out by a leading blood bank and similar sentiments being echoed through a WHO study, the general perception of blood banks in India among the public is considered as being charitable institutions, having poor infrastructure, unhygienic, economically unstable, not trust-worthy due to pressures of replacement, poor quality of testing, and lack of safe blood. From our survey too, the perceptions of blood banks is that of mistrust, profit-making and unethical. On the whole, this highlights the fact that India lacks a nationally coordinated modern blood transfusion services system.

Prathama, in spite of carrying the tag of India's largest & most modern blood centre and having won several awards & recognition in the area of blood transfusion seems to be suffering from a lot of negative perceptions.

***The Paradox***

From our research, it is clear that Prathama is very close to its claim of being the pioneer of *Societal Marketing* in the Indian blood banking sector and they have certainly come a long way since their inception in the 90s. They have a team of donor consultants & team leaders who are involved in campaigning of blood donations in different segments like corporate, institutions, clubs, societies, villages, etc. During blood donation drives, Prathama gives away good quality stickers, caps, bags as part of merchandising and free gifts for donors and also gives a booklet which records your date and donation and can be used for the purpose of free blood component for the donor. Prathama also gives each donor a free blood report indicating blood group and screening of diseases like Malaria, Hepatitis B, HIV, etc. The team reports to a Societal Marketing Coordinator who takes care of the campaign planning & implementation. Through their in-house studio, a lot of leaflets, brochures, posters with personalized messages are used for marketing support during blood donation drives. Prathama also believes in giving the people a great experience during blood donation and wants them to feel like Kings! To implement the same, it runs 3 magnificent designer vehicles which are called as blood mobile vans. They visit different parts of the city and/ or state through coordination of the call centre which calls up past donors and invites them to visit their nearest places for blood donation through the vans. Prathama believes that if the donor cannot come to the bank the bank must go to the donor…either through the donor consultants who have performance targets or through the mobile vans which also carries targets for the call centre dept. Each van is accompanies by a doctor and a team of technicians will all the latest facilities to ensure that the donor goes through a fabulous and comfortable experience of blood donation. The database of donors is used by the donor consultant team & the call centre for their daily operations thanks to the customized ERP system of Prathama which is known as *Vyan*.

Prathama in the past has also practiced *cause marketing* by arranging blood donation drives on important days like World Thalassemia Day and in the process donated some percentage of the collected blood for the cause of Thalassemic children in Ahmedabad. To mark its third anniversary, Prathama also conducted a unique art exhibition that encouraged the spirit of blood donation to save lives. Prathama brought together six premier artists, under the banner "Protsahan", who have donated their works for the cause of blood donation. Well known artists

— Toofan Rafai, Vinod Shah, Jyoti Bhatt, Janak Patel, Jeram Patel and Piraji Sagara — put their creativity and emotions on the canvas, which will was displayed for three days.

They have also collaborated with commercial organizations like Radio Mirchi for joint promotions of safe blood awareness, HIV awareness and other causes during blood collection campaigns. Some time back, they also joined hands with Thalassemia Jagruti Foundation (TJF) for blood donation drives and in the process carried out Thalassemia awareness & testing along with blood donation and sponsored underprivileged Thalassemic children.

Prathama also identifies individuals who have great influence and contacts to nominate them as voluntary blood drive coordinators and in some cases also hire honourary consultants and ambassadors.

In spite of all the above efforts, why is Prathama being suspected? Where has Prathama gone wrong? Why does it suffer from a negative brand image? Why does the public in general view Prathama's marketing activities & set-up as money-making & profit-oriented? Why does Prathama carry the perception of a *rich man's blood bank*?

We dare to attempt the answers of the above questions based on implications of the overall research.

Prathama happens to be a charitable trust with noble objectives towards the society and science. A huge 7.5 crore building covering 30,000 sq. ft of construction with the most modern facilities for collection, processing, storage & distribution of blood components backed up by 3 fully integrated blood mobile vans with built in blood collection facilities throws a lot of questions in the minds of the public. The perception of blood banks in India contradicts the presence & activities of Prathama. It is possible for people to link the source of funds, the presence of 5 star facilities, high-tech mobile vans and aggressive marketing activities of Prathama to that of profit-making. That perhaps leads to the skewed perception of the public about Prathama being professional & money-making at the same time.

Prathama needs to educate the public about the importance of safe blood and the role of Prathama in offering the highest quality of blood components. Prathama also needs to educate more about the importance of blood donations in the Indian society and clearly needs to specify the reasons of maintaining high standards of quality & use of professional marketing approach to achieve it's future goals. The irony is that if commercial organizations in our country would engage in *societal marketing* and *cause marketing*, the public in general would appreciate it but if charitable organizations like Prathama engage in *societal marketing* and *cause marketing* professionally and religiously, people perceive it as money-making, aggressive and not trust-worthy. Prathama, according to us, has made a very good beginning towards efforts to modernize blood banking in our country and their efforts have saved a lot of precious lives! They would perhaps do better if they get more financial and political support.

Blood safety has been a priority area of work for World Health Organization (WHO). We would like to conclude with one of their themes adopted for World Health Day which serves as a reminder to us for donation blood for the well-being of our society;

**"Blood saves Life. Safe blood starts with me"**

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## APPENDIX

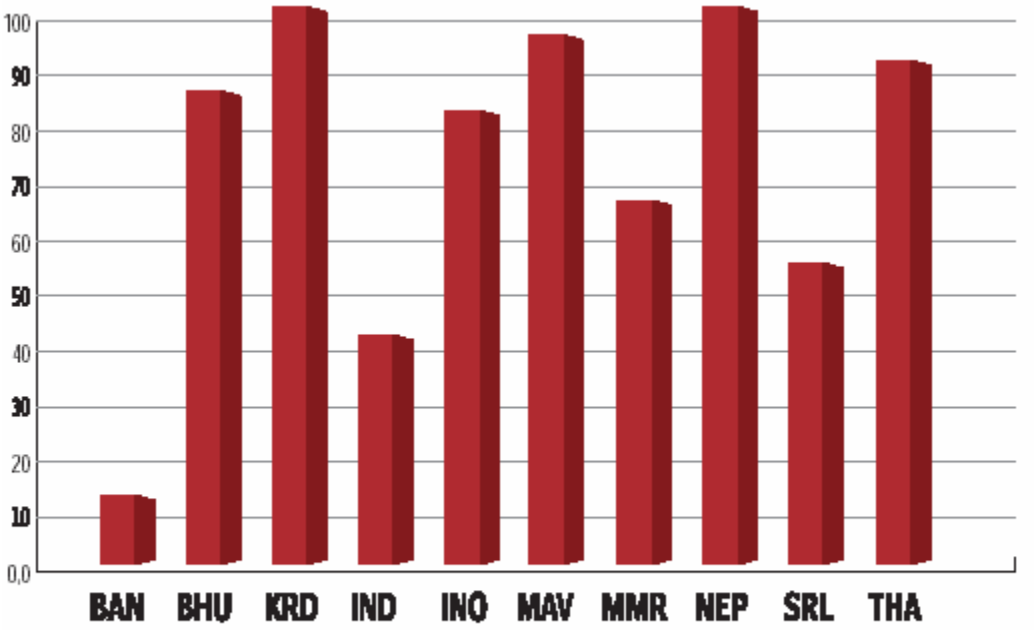


*Fig 1: Voluntary blood donation in countries of South-East Asia Region (percent of total collection)*

**Figure 2. The slightly hermetic concrete exterior of Prathama**

**Figure 3. A soaring atrium unites the various volumes and functions**

**Figure 4. Blood Donation Suite**

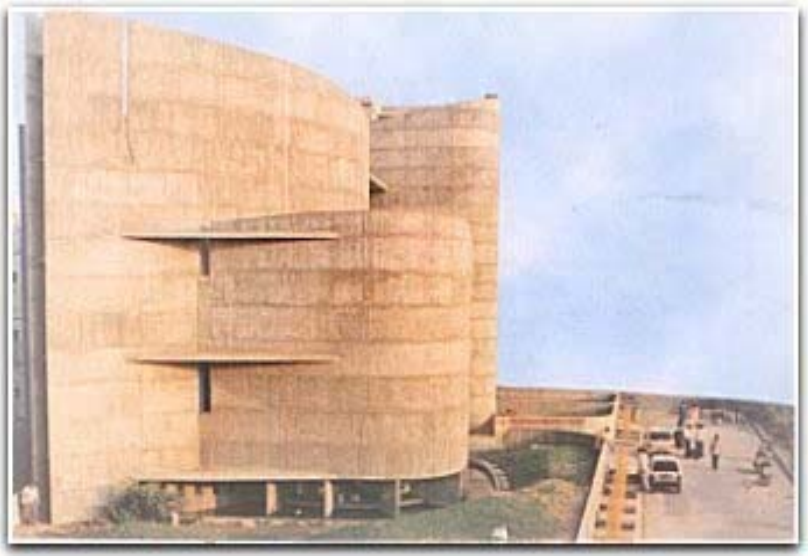

**Figure 5. Prathama at a Glance**

**Table 1.Products/ service with service charges at Prathama**

| Products/Service | Description | Service charge (Rs.) | Sp. Service Charges for Haemophillacs (Rs.) | Sp. Service Charge for Thallasaemics (Rs.) |
|---|---|---|---|---|
| **Red Cells** (Concentrate of human RBC in additive solution) | RBCs in Additive Solution (from 450ml of whole blood) | 450.00 | | 300.00 |
| **Platelets** (Random Donors) | $>0.5*10^{11}$ Platelet in 45-65ml plasma (from 450ml of whole blood) | 350.00 | | |
| **Fresh Frozen Plasma** | Around 250ml plasma, all clotting lectors including labile factors (like factor V & VIII blast frozen within 6 hrs. of whole blood collection (from 450ml of whole blood) | 500.00 | | |
| **Cryo Precipitate** (Cryoprecipitate anti haemophillc Factor) | Around 20ml plasma, factor VIII, fibrinogen & fibronectin (from 450ml of whole blood) | 350.00 | 250.00 | |
| **Cryo Poor Plasma** (Normal Human Plasma) | Around 230ml Plasma, Stable clotting factor( from 450ml of whole blood) | 400.00 | 300.00 | |
| **Paediatric Unit** (RBC, FFP, CPP) | Volume as per request, in a bag, along with the primary bag (mother bag) separated under laminar air flow shelf life is 24hrs. however to be consumed preferably in 6hrs. | 450.00 +75.00 per transfer | | |
| **Saline Washed Red Cells** | Red cells (from 450ml of whole blood) washed in NS thrice under laminar air flow shelf life is 24hrs. however to be consumed preferably 6hrs. | 650.00 | | |
| **Neonatal Exchange Transfusion Product** | O Negative red cells suspended in AB positive plasma under laminar air flow shelf life is 24hrs. however to be consumed preferably 6hrs. | 1050.00 | | |
| *Cross Match Protocol 1* | Saline & Albumin cross match Technique | 25.00 | | |
| *Cross Match Protocol 2* | Protocol 1 + Coomb's cross match Technique | 50.00 | | |

**Table 2. Status of Blood Transfusion Services in South East Asia**

| Country (No of blood banks) | BAN (98) | BHU (29) | KRD (12) | IND (1854) | INO (157) | MAV* (21) | MMR (363) | NEP (55) | SRL (64) | THA (159) | T-L (3) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of units collected per year | 160,000 | 6,000 | 100,000 | 6 million | 1,198,000 | 6,200 | 180,000 | 74,000 | 170,000 | 1.4 mil | 1,400 |
| VNRD% | 27 | 30 | 100 | 50 | 77 | 20 | 57 | 90 | 60 | 94.45 | 5 |
| Replacement % donors | 56 | 70 | 0 | 50 | 23 | 80 | 43 | 10 | 40 | 5.36 | 95 |
| Paid donors% | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Used as whole blood % | 90 | 45 | 80 | 80 | 28 | 30 | 90 | 90 | 5 | 20 | 100 |
| % screened for HIV | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | NA |
| % screened for HBV | 100 | 100 | 100 | 100 | 100 | 100 | 85 | 100 | 100 | 100 | NA |
| % screened for HCV | 100 | 100 | 100 | 100 | 60 | 100 | 30 | 100 | 40 | 100 | NA |
| Prevalence of HIV in donors | 0.002 | 0 | NA | 0.50 | 0.092 | 0 | 0.6 | 0.4 | 0.0002 | 0.16 | NA |
| Prevalence of HBV in donors | 1.48 | 1.6 | NA | 1.4 | 2.0 | 0.8 | 7.0 | 1.2 | 0.03 | 1.51 | NA |
| Prevalence of HCV in donors | 0.14 | 0.15 | NA | 0.4 | 0.08 | 0.001 | 2.5 | 0.57 | NA | 0.32 | NA |

BAN : Bangladesh, BHU : Bhutan; KRD : DPR Korea; IND : India; INO : Indonesia; MAV : Maldives; MMR : Myanmar; NEP : Nepal; SRL : Sri Lanka; THA : Thailand; T-L : Timor Leste NA : Not available; ND : Not done