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# Blood Donation Policy and Associated Social Values (Cote d'Ivoire)

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**Abstract:** Background: Blood transfusion is essentially based on blood donation. WHO has identified three types of blood donation (paid blood donation, family or alternative blood donation and voluntary, free blood donation). The one, she recommends (voluntary, anonymous and unpaid donation) which is rare in Africa. Objective: Our study was to identify the policy in force in Cote d'Ivoire and the values that blood donors associate with it. Method: Our study based on a questionnaire administered to 268 primary and regular blood donors and an interview guide with seven officials of the National Blood Transfusion Service (NBTS). The tools were taught at blood transfusion sites (BTS Daloa, Treichville and Yamoussoukro) during donation hours (from 7:30 am to 12 pm) and Data collected processed using Epidata 3.1 and Epidatanalysis. Result: In Cote d'Ivoire, blood donation policy has been in line with WHO recommendations since the creation of the NBTS in 1958. Our study has identified four values (solidarity and generosity, anticipatory action, voluntary, free and selfless act and medical value). However, the first value (solidarity and generosity) is high important regardless of the type of blood donation (regular or primary). This policy has always been the result of the main characteristics of ivorian communities ("*Country of hospitality*" and "*The homeland of true fraternity*"). Conclusion: The Cote d'Ivoire has only known voluntary, anonymous and unpaid donation whose the main value is solidarity and generosity, a characteristic value of the ivorian communities.

**Keywords:** Blood Donation Policy, Solidarity, Generosity, Anticipation, Volunteerism, Freedom and Selflessness

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## 1. Introduction

"[Blood transfusion] is a medical procedure that involves administering one of the components of blood (red blood cells, platelets, plasma, etc.) from one or more apparently healthy subjects called "donors" [1].

This medical practice still faces a problem, that of the supply of blood products. Indeed, advances in medical science in the production of artificial blood have shown their limits. P. Herve & al. noted that: "whatever the complexity of the techniques used, the blood donor has been the key player since the beginning of this story" [2].

As a result, only the outstretched arm of blood donors remains for the time being, and perhaps for a long time to come, the sole alternative for supplying blood establishments.

To address this issue and to control blood transfusion, each country has defined regulatory frameworks and a donation policy. WHO has identified three of these: paid blood

donation, family or alternative blood donation and voluntary, free blood donation [3, 4].

The former is based on paid or commercial donors who donate their blood for payment or other benefits that satisfy a basic need or can be sold, converted into cash or transferred to someone else. They may sell their blood to several blood banks or approach patients' families and try to sell their services to them by posing as family/replacement donors [5-7].

The second based on family or replacement donors who donate their blood when needed for a family or community member. In most cases, hospital staff ask the patient's family to donate blood, but in some situations, it is mandatory for each patient requiring a transfusion to provide a specified number of replacement donors at the time of emergency hospital admission or prior to scheduled surgery [5-7].

The latter, on the other hand, is based on unpaid voluntary blood donors who freely donate blood, plasma or figurative blood and receive no payment, either in cash or in kind, that can be considered as a substitute for money, including time off work, other than that reasonably necessary for donation and movement. Small symbolic gestures, refreshments and reimbursement of transportation costs are compatible with voluntary unpaid donation [5-7].

In the latter case, the donation of blood implies respect for biological, immunological, medical, as well as regulatory and legislative constraints governing this practice. The principles of identification, hemovigilance and safety of the blood chain apply in particular.

WHO, the International Federation of the Red Cross (IFRC), the Council of Europe, the International Blood Transfusion Society and the International Federation Organizations of Blood Donor (IFOD) have opted for voluntary, voluntary, anonymous and unpaid blood donation as a fundamental principle. They recommend that all blood donations be voluntary and unpaid and that no coercion be placed on the donor to give [8]. However, in Africa, family or alternative blood donation remains the most widespread.

What is the situation in Côte d'Ivoire and what are the social values contained in this adopted policy?

The objective of this study is to describe the current blood donation policy in Côte d'Ivoire and to identify the social values it contains.

## 2. Methodology

### 2.1. Geographical Location of Cote d'Ivoire

Cote d'Ivoire is a country located in West Africa, in the northern hemisphere, between the Tropic of Cancer and Ecuador. It is bounded to the north by Burkina-Faso and Mali. To the west, by Liberia, to the north-west by Guinea, to the east by Ghana and to the south by the Atlantic Ocean.

### 2.2. Study Area

This cross-sectional study took place in the municipalities of Abidjan-Treichville, Daloa and Yamoussoukro, the choice of which was guided by the main variable that is the presence of a Sanguine Transfusion Center (a structure that carries out the activities of collection, biological qualification of donations, preparation, storage and distribution).

### 2.3. Topics

In order to describe Côte d'Ivoire's blood donation policy and identify the social values of blood donation, we conducted a prospective study from February to April 2017.

The study covered three categories of topics:

- 1) Regular donors: these are subjects that at the time of the investigation give blood and have made at least 2 blood donations in the last 12 months;
- 2) First-time donors: these are subjects that gave once at the time of the investigation;
- 3) NBTS officials involved in the donation and blood

donor process.

For the development of the sampling, NBTS [9] data recorded 26,800 blood donors. At this number, we applied a 1% survey rate and obtained 268 donors to be interviewed.

As for the NBTS, we interviewed seven officials, namely the head of the social communication service, the head of the collection service (mobile and fixe), the head of the blood product distribution service, the head of the service coordination service and the heads of the BTS).

### 2.4. Data Collection and Processing Tools

We used a questionnaire for blood donors and an interview guide for NBTS officials who have been informed by us. The tools were taught at blood transfusion sites (BTS Daloa, Treichville and Yamoussoukro) during donation hours (from 7:30 am to 12 pm).

Data collected from the questionnaire were processed using Epidata 3.1 and Epidatanalysis. Those collected through the maintenance guide were reviewed manually. We did a content analysis.

### 2.5. Theory of Social Values

Values have been a central concept of the social sciences since their inception. Values are the concepts, socially desirable, that are used to represent three objectives (to satisfy the biological needs of individuals, to enable social interaction, and to ensure the proper functioning and survival of groups), and at the same time the lexicon used to speak about these objectives in social interactions. Individuals cannot be able to meet these three necessities of human existence on their own. In addition, they must articulate goals that enable them to address them, communicate with others about them, and get others to work together. Thus, from an evolutionary point of view [10], these objectives and the values that express them are central to survival.

H. H. Schwartz identified 10 different core values in terms of motivations (autonomy, stimulation, hedonism, success, power, security, conformity, tradition, benevolence, universalism) recognized in all cultures and described the dynamics of oppositions and compatibilities between them. The author hierarchies them [11].

Indeed, whatever the society, benevolence (1<sup>st</sup> position), universalism (2<sup>nd</sup>) and autonomy (3<sup>rd</sup>) are the values that come first. Safety (4<sup>th</sup>) and conformity (5<sup>th</sup>), hedonism (6<sup>th</sup>), success (7<sup>th</sup>), tradition (8<sup>th</sup>), stimulation (9<sup>th</sup>) and power (10<sup>th</sup>).

Benevolent values arise from the need for the group to function harmoniously [12] and the need for the individual to be affiliated as a biological organism [13, 14]. It contributes to developing cooperation and solidarity.

In addition, S. H. Schwartz noted that value "prioritization" or "prioritization" processes are determined by socio-demographic variables such as age and life cycle, gender, education level, income, etc.). He wrote: "age, education level, gender, income and other socio-demographic characteristics have an impact on relationships, learning experiences, social roles, aspirations, sanctions, and

capacities that are developed" [11].

Since blood donation is a social action, the factors of the transition to action find their essence and explanation in these social values.

### 3. Results

#### 3.1. Blood Donation Policy in Cote d'Ivoire

In Cote d'Ivoire, since the creation of the National Blood Transfusion Service (NBTS) in 1958, the policy of voluntary, voluntary and unpaid blood donation has been applied (see map below).

To this end, various statutory instruments (laws, decrees and decrees) have been adopted to reaffirm this choice. These include Act No. 93-672 of August 09, 1993 on therapeutic substances of human origin and Decree No. 91-653 of October 09, 1991 which redefined the organization of blood transfusion.

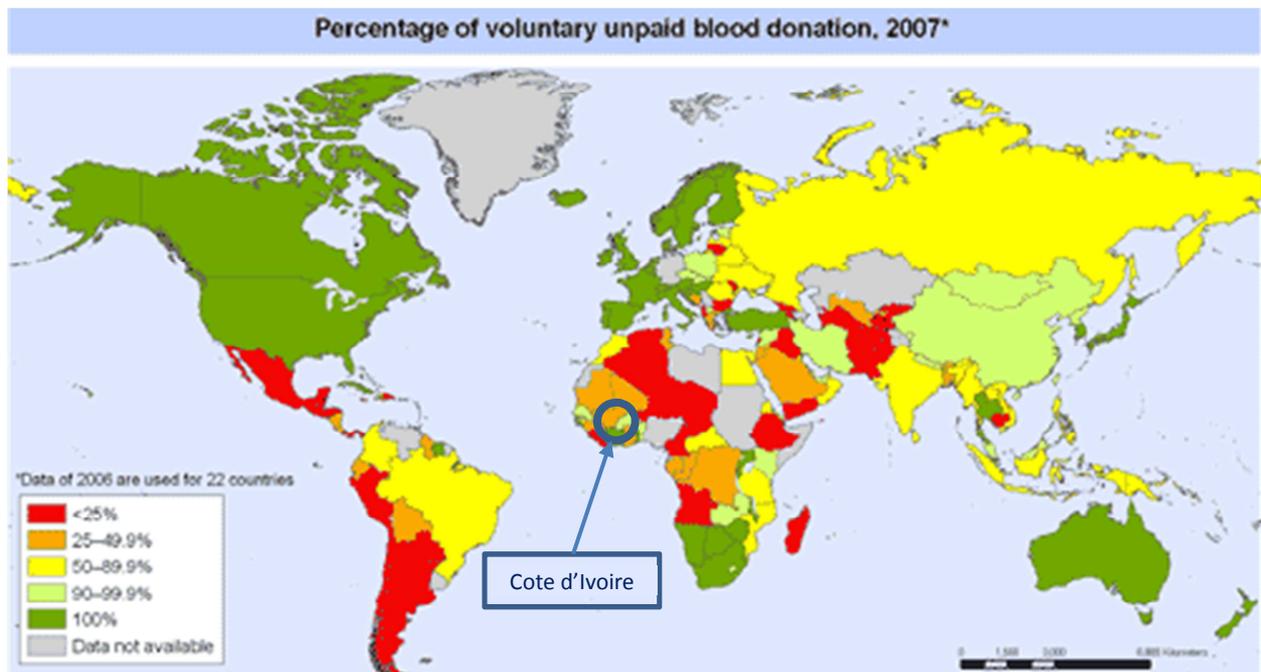
In fact, "while [until then] there were only a few regulations governing the practice of Blood Transfusion,

Côte d'Ivoire has just taken a big step forward, by adopting a law on therapeutic substances of human origin". It enshrines the policy of voluntary, voluntary and free donation. Thus, in Article 3, it is noted that "any transfer, free of charge or for a fee, of therapeutic substances, in forms and conditions other than those laid down by this Law and its implementing regulations, is prohibited and punishable by criminal sanctions.

He, who contributes his therapeutic substance, must act free of charge and voluntarily, without any physical, moral or financial pressure can be the source of his act".

It also aims to protect the recipient by standardizing the quality of the products provided and the services rendered. It fights against abuse and any other form of trafficking in therapeutic substances of human origin (blood and organs).

The latter is part of the public service and the structure in charge, the NBTS, enjoys the status of a National Public Establishment with an administrative character (NPE).



Source: WHO & FISCR, 2011 [8]

Figure 1. Distribution of blood donation policies worldwide adapted to our survey.

#### 3.2. Social Values Associated with Blood Donation in Cote d'Ivoire

Table 1. Evolution of blood donation patterns by donor type.

Status of blood donors Values	1 <sup>st</sup> donation		Regular donation	
	Number (n=268)	%	Number (n=190)	%
Solidarity and generosity	158	58.9	123	64.7
Early action	49	18.3	34	17.9
Voluntary action, free and selfless	47	17.5	30	15.8
Medical means	13	4.9	3	1.6

Source: Our survey

Four major groups of values are associated with blood donation, both at the level of primary donors and regular

donors. It is about solidarity/generosity, anticipation, volunteering/freedom/selflessness and medical means.

### 3.2.1. Donation of Blood, a Gesture of Solidarity and Generosity

The majority of respondents in our survey referred to solidarity and generosity as a source of motivation for blood donation. These values are the first justification for both first-time donors (158 or 58.9%) and regular donors (123 or 64.74%). This provision is supported by regular blood donors. Indeed, donors embed their approach in what they call a "chain of solidarity" in which those who help today will be helped tomorrow. Thus, it was noted: *"out of solidarity, yes (...) I think that if one day I need it, I will be glad to have it, so until then, I give mine"* (Source: Our investigator).

Some donors use terms of kinship (siblings) to materialize beneficiaries and reduce potential barriers that could prevent them from doing this. They signified it by *"the blood I give is to help sick brothers and sisters in our health facilities"* (Source: Our investigator).

These social values of solidarity and generosity confirm the strong words of the national anthem of Côte d'Ivoire which state: *"Country of hospitality" and "The homeland of true fraternity"*.

Thus, participating in certain actions corresponds to ideals of citizenship. As a result, some blood donors see their act as a *"citizen action"* (Source: Our investigator). This value is translated by the title of the image of the Ivorian Press Agency (IPA) below.



Source: IPA / Ivorian Society of Bank (SIB) [15]

Image 1. Citizen action of blood donation of employees to celebrate the laurels gleaned by the Ivorian Society of Bank (SIB).

This reality is captured by the slogans of the NBTS: *"Giving your blood is saving lives"*, *"who loves his neighbor gives his blood"*, *"I give my blood, I save lives"* (Source: Our investigator).

### 3.2.2. Blood Donation, Voluntary, Free and Selfless

As noted above, in the current policy, "the absence of financial, material and physical constraints is the ethical basis on which the National Blood Transfusion Service of Cote d'Ivoire operates" (Source: Our investigator).

Thus, through the assertion "help others", donors provide a response whose characteristics are intrinsically dictated by those in force and defined by the regulatory texts. They perform an act whose characteristics are "volunteer", "voluntary" and "unselfish".

This posture is the result of three realities. The first is related to the absence of alternatives to blood transfusion in certain pathologies and/or emergencies and the intransigence of the NBTS agents has opted for other policy (family donation or replacement) even if the patient's vital prognosis is engaged. The second that follows from the first is the pervasiveness of therapeutic blood product needs in patient care. The last one is the market value that blood could have. Thus, it could be noted that "blood has no price" on the part of the respondents (Source, Our investigator).

This threefold reality guides blood donors in Cote d'Ivoire because communication and publicity about blood donation and the environment (personal and professional) of individuals enlighten them for the passage to action for non-donors and encourage their retention for regular donors. Indeed, a significant number of donors are made aware of blood donation by a problem in their immediate environment (disability, illness, accident, etc.). In addition, some respondents reported participating in the blood program because they are aware of blood needs. They argued their response with: "I work in the medical community and I am aware of the need for blood" (Source: Our investigator).

### 3.2.3. Blood Donation, an Early Action

One of the motivations for blood donation is foresight or personal protection. Indeed, only the outstretched hand of the donor allows to carry out the transfusion therapy. Thus, thinking about the fact that you may need it one day guides the actions of donors. To this end, *"self-protection"* is the second highest among our respondents and is almost constant for first-time donations (24.63%) and for regular donations (22.1%). The reasons are: *"I may need it some day, or my family members"* and *"I may need blood some day"* (Source: Our investigator).

Even among respondents who support donating blood out of sheer generosity or solidarity, they share this perception: *"out of solidarity, yes (...) I think that if I need it one day, I will be glad to have it, so until then, I give mine"* (Source: Our investigator).

Donors therefore embody their approach in what they call a *"chain of solidarity in which those who help today will be helped tomorrow"* (Source: Our survey).

### 3.2.4. Medical Value

In addition to the above values, blood donation also presents itself as a *"mini health check"*. Thus, the concept of medical check-up (13 or 4.9% in first-time donors and 3 or 1.6% in regular donors) concerns HIV/AIDS status, blood type, medical indication for patients whose management requires bleeding such as genetic hemochromatosis and medical surveillance are reasons for participation in blood donation.

Indeed, before the Voluntary Testing Centers (VCTs) blossomed, blood donations were a means of screening and knowledge of HIV/AIDS status for some donors. In addition, the NBTS is the reliable establishment for determining blood groups. Persons who meet the conditions of the donation go there for this purpose. They are entitled to draw up blood

type cards free of charge instead of paying 3,000 FCFA.

As for the medical indication, one of the winners of the 2012 World Blood Donor Day (WMDW) Blood Donor Awards explained that blood donation was a cure for his ailment. Thus, he reported: *"following a hypertension attack on december 31, 1984, when I had three (3) days of coma, the doctor advised me to donate blood to correct my illness. And since January 1985, I do this regularly"* (Source, Our survey). At the time of our investigation, he had 131 blood donations.

As a starting point, blood donation is akin to a health check given the different tests carried out (blood pressure, hemoglobin levels, HIV/AIDS, viral hepatitis B&C and syphilis) and the advice given after each donation. It allows donors to *"monitor their health"*, some regular donors told us (Source, Our Survey).

## 4. Discussion

### 4.1. Typology of Transfusion Structures and Blood Donation Policy in Developing Countries

In developing countries, the administrative, technical and financial organization of blood transfusion is diverse and mixed. Some countries, such as Zimbabwe, Uganda, South Africa, Namibia, Zambia and Cote d'Ivoire, have been able to achieve centralized, voluntary-donor national transfusion services. Donor recruitment, blood collection, laboratory testing, preparation and distribution of blood products are organized either at the regional or national level [15].

These centralized systems have many benefits, including reduced costs of laboratory immuno-hematological tests (blood grouping, HIV testing, viral hepatitis B and C, syphilis), production of blood labile products, standardization of quality assurance processes [16].

However, in most sub-Saharan African countries, transfusion is organized through a decentralized hospital-based system. Most donations come from family blood donors or replacement blood donors collected from these hospitals [15, 17-22].

For the WHO, the IFRC, the Council of Europe, the International Blood Transfusion Society, the International Federation Organizations of Blood Donor [8], etc., the latter category of donors allows a sufficient secure blood supply that can only be ensured by regular donations by unpaid voluntary donors. This is the safest group of donors, as it is among them that the prevalence of blood-borne infections is lowest. Unlike family and paid donations that have a high prevalence of these communicable infections [5-6, 17-20, 23-33].

For example, WHO urges its member States to establish national blood collection systems based on voluntary unpaid donations in order to achieve the goal of self-sufficiency in safe blood and blood components [34].

But, a 2012 WHO assessment found that only 62 countries (32%) of its 193 members states collect 100% or more of 99% blood from voluntary and unpaid donors [35].

Generally, these are high-income countries (developed countries); where medical service systems are more developed and where voluntary non-remunerated donor associations are strongly involved in blood collection and donor loyalty activities [30-34, 36].

### 4.2. Social Leadership in Voluntary, Voluntary, Anonymous and Free Blood Donation

The results of our study show that social issues are at the heart of the actions of blood donors in Cote d'Ivoire. This perception of the gift is confirmed by the studies of B. Danic [37], L. Ambroise & al. [38] and the EFS Ile-de-France [39]. For the first, *"the act of blood donation is justified by the donors themselves by a moral and social duty. Giving meets a need for blood. Giving is about confirming your community and taking your place in it. (...) the image of the gift is always (...) associated with feelings of generosity and solidarity"* [29]. Thus, he defines blood donation as *"a free, free and anonymous act, conditions that define volunteerism"* [37].

As for the second, *"generosity is a fundamental aspect of giving...The few respondents who raise the issue of remuneration for giving do so to reject it strongly. (...) The noise had run that they were going to make pay, you must not do that I think. It is important not to do this (...) the day they give something to the donors, I will not come to it. (...) Because when you donate, you do not have to be paid. (...) It is pure and simple generosity"* [38].

For its part, the EFS Ile-de-France noted that *"the gift is not the fruit of "chance". The step is taken because of a personal event such as a bereavement or the illness of a loved one (...) or because of an awareness or a speech of close (...). Others are aware that they may, one day, need blood. They invest in the future, sometimes by projecting themselves on a loved one who had to be transfused"* [39].

However, the use of blood donation as a means of health surveillance was not mentioned by the authors.

## 4. Conclusion

Blood donation is one of the unique ways in which a "healthy" man can put his healthy capital at the service of his neighbor and society. Volunteer, voluntary and unpaid blood donation is based on social values such as solidarity and generosity, selflessness and liberality. These three dimensions are clearly identified in the literature.

Cote d'Ivoire is one of the few countries in sub-Saharan Africa to successfully implement the voluntary, anonymous and unpaid blood donation policy. Since the creation of the NBTs in 1958, 100% of blood donations have been made by voluntary, unpaid donors.

The adoption of this policy has always been the result of the main characteristics of the different ivorian communities (*"Country of hospitality" "The homeland of true fraternity"*).

Thus, blood donation is an act of great humanitarian significance, the highest form of human solidarity, openness to others and confidence in the future.

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