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EFS
ÉTABLISSEMENT FRANÇAIS DU SANG
Du donneur aux patients

EFS SOCIAL LAB

Recruiting new plasma donors

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The EFS Social Lab draws on knowledge in the field of human and social sciences to devise action plans for improving the donor experience at Etablissement français du sang (EFS, French Blood Establishment) sites. The EFS Social Lab Papers outline the results of its studies.

The third edition of the EFS Social Lab Papers focuses on a question that will be a defining issue for the establishment in the years to come - recruiting new plasma donors. The reason for this is that EFS will have to increase its plasma collection to keep pace with the sharp rise in medical needs for plasma-derived medicines which will bring into question France's self-sufficiency in plasma, something that is not currently secured.

1. HOW IS PLASMA COLLECTION CURRENTLY ORGANISED IN FRANCE?

EFS collects plasma in France

EFS has a monopoly on blood and plasma collection in France. A proportion of the plasma collected by EFS comes from blood donations. Three blood components are separated from these blood bags: red cells, platelets and plasma. It is also possible to collect plasma through **specific donations**, where the donor solely donates their plasma and the rest of their blood is returned (plasmapheresis). In place since the late 1990s, these donations provide greater quantities of plasma given that the volume of plasma collected in one sitting is two to three times that of the volume collected through blood donation. This type of donation takes place at the 'maison du don' blood donation collection centres (EFS fixed sites). Plasma donations can be carried out more frequently than whole blood donations because the donor recovery time is faster.

Plasma has two uses: **it can be transfused as such or used to produce blood-derived medicines**. To prepare these medicines, **proteins need to be extracted from the plasma through fractionation.**

In France, the **monopoly on plasma fractionation is held by the LFB (French Fractionation and Biotechnology Laboratory)**. Like EFS, the LFB is an establishment supervised by the French Ministry of Health and under the control of the French National Agency for Medicines and Health Products Safety (ANSM). EFS supplies the LFB with the plasma it needs for fractionation, corresponding to the orders it receives from French hospitals. EFS is not authorised to supply plasma raw material to any other fractionation operator.

Plasma needs can vary

Demand for plasma is not constant as it depends on the needs of the LFB. The LFB must compete with laboratories in other countries to obtain contracts with French hospitals, because the proteins that result from fractionation have legally held the status of medicines since the early 1990s and are therefore subject to competition. **Depending on the contracts obtained by the LFB, the plasma needs passed on to EFS can vary considerably**. In the past, this has led to sudden stoppages of a proportion of plasma donations or conversely sharp increases in demand. The competitive situation in which the LFB is placed also means that plasma collection in France needs to be efficient in order to rival that of other laboratories that the LFB goes head to head with to win contacts.

The pharmaceutical laboratories competing with the LFB have their own plasma collection channels in which donors receive payment. In 2017, the United States represented 65% of global plasma collection (of which 95% from plasmapheresis). Two-thirds of this production was exported to Europe to meet the needs of European patients. **Plasma collection in France covers only around 30% of national needs**.

Controversies surrounding the safety of plasma donation which could impact donor confidence and that of EFS staff

In 2009, **the tragic death of a plasma donor** shook EFS and prompted the establishment to carry out a review that resulted in the phase-out of all plasma donations from mobile collections. Henceforth, plasma donation would only be possible at fixed sites located near hospital centres. This decision had the effect of vastly reducing the recruitment perimeter for plasma donors.

On 10 February 2017, a **Mediapart (independent French investigative online newspaper) article entitled "Le scandale Haemonetics, nouvelle affaire du sang contaminé" [The Haemonetics scandal, another case of contaminated blood]** alleged that French donors were exposed to carcinogenic or mutagenic substances during plasma collection via separators from the supplier Haemonetics, the model used by EFS. Independent expert reports and an investigation conducted by the French government agency IGAS, all published, concluded that there was no confirmed risk to plasma donors.

Another incident relating to the malfunctioning of a Haemonetics device led to the suspension, as of 12 September 2018, of the device's use as a precautionary measure and to the stoppage of plasmapheresis on 300 machines. The EFS sites have since been gradually re-equipped with devices from another supplier. Nevertheless, the discovery of particles of biological origin, and therefore harmless, in donations made using these devices has caused worry among the establishment's staff.

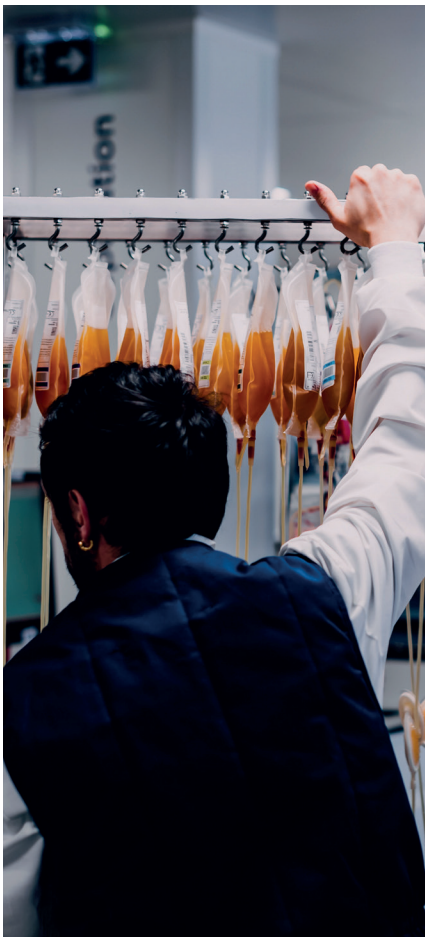
Although EFS has put in place a monitoring system for concerned donors and has communicated extensively on this crisis, it remains **difficult to assess the real impact of this matter on the confidence of donors and EFS staff with regard to plasma donation**.

3 QUESTIONS TO ONE OF THE AUTHORS OF THE REPORT, ANTOINE BEUREL-TRÉHAN, RESEACH ENGINEER AT ETS BRETAGNE

Why focus on the subject of recruiting plasma donors? What makes this topic so important to EFS for the future?
Antoine Beurel-Tréhan: Like all blood collection systems based on non-remuneration, plasma collection has become a major issue in recent years. Faced with the sharp increase in plasma needs on a global scale, organisations are adapting to improve collection. We are seeing the same phenomenon everywhere: plasma donation is not the same as giving blood, and it is not easy to convince blood donors to try plasma donation. Which is why EFS, like other organisations around the world, has turned to human sciences to identify ways to better understand what determines commitment to plasma donation, so as to improve practices. In our case, the aim is to better understand the specific characteristics of apheresis donation, the reasons why a person decides to donate – or not to donate – plasma, and to develop tools and methods of persuasion built on this knowledge and adapted to the different donor profiles.

Have your efforts in this area been inspired by practices in other countries?
A. B.-T.: Of course! We've looked at what is in place in other countries both on a scientific and organisational front. The challenges linked to plasma are not limited to France alone, and many countries are putting in place initiatives to adapt their collection as best as possible. We have notably examined the 'direct' recruitment practices used for plasma donors, that is to say recruitment of non-donors for plasma donation, in EBA (European Blood Alliance) and ABO (Alliance of Blood Operators) countries. This has revealed that this practice is still relatively little used at an international level, but is being increasingly developed. Some countries have already made significant headway in this area: the Canadian Blood Services with the opening of 8 sites exclusively dedicated to plasma donation in 2020; Australia since 2017, with the introduction of communication campaigns for the general public encouraging plasma donation among non-donors and the deployment of awareness-raising tools (mobile app, chatbot, etc.). The feedback from these countries has enriched this report in terms of different practices and on the experiences already encountered by our international colleagues.

How will this reflection process continue? What will be the follow-up to this report?
A. B.-T.: As part of the work carried out at EFS and referred to in this report, elements of language concerning the easing of barriers to plasma donation were trialled. These results contributed to the formulation of some of the recommendations in this report, which have already been incorporated into a research project. This project aims to continue the development and assessment of new approaches in order to better convince blood donors to donate plasma, to work with plasma donors to strengthen their commitment to donation, and lastly to work with the teams to support the implementation of new practices. The first objective follows directly on from the work already carried out and should result in the implementation of the experimental solutions we have developed on the ground. The second objective is exploratory and will help hone our knowledge of the factors influencing return to donation in order to improve practices to enhance donor loyalty in the long term. Lastly, the notion of support for the teams was at the core of our discussions throughout the work on this report, and exchanges will be put in place with collection, communication and marketing professionals to identify the best ways to incorporate the knowledge gleaned from the field of human and social sciences into everyday practices.



2. WHY INCREASE PLASMA DONOATION IN FRANCE?

The need to increase plasma donations in France stems from the desire to **safeguard the ethical donation model**. EFS and the French Voluntary Blood Donors' Association (FFDSB) recalled in a joint press release in February 2015 that safeguarding the French ethical plasma donation system is vital as:

- it guarantees **better recipient safety**: donors are motivated by solidarity alone, and not by any form of remuneration;
- it **better protects donor health**, limiting the annual number of plasma donations to 24, whereas it can be as many as 120 in countries where donations are remunerated;
- it is consistent with the French and European concept of **not treating the human body as a saleable commodity**;
- ethical donation is in keeping with the **French Republican tradition**, as an act of citizenship and solidarity.

Today, France is not self-sufficient in plasma and therefore uses blood-derived medicines (BDM) produced from the plasma obtained from paid donors. Using 'ethical' plasma from other countries would not appear to be the best way forward, because meeting French plasma needs means that the distribution of ethical products would decrease elsewhere. **The most desirable goal is therefore to increase the quantity of plasma collected under the principles of the French ethical model, with the aim of achieving self-sufficiency**. This reduced dependence of France on blood-derived medicines from other countries is even more important given that patient needs are rising sharply. The needs for polyvalent immunoglobulins, for example, has doubled in France since 2007.

The goal of increasing plasma collection naturally has significant impacts on the recruitment and retention of plasma donors.

3. HOW TO RECRUIT AND RETAIN PLASMA DONORS?

Behaviour change: a lens through which to examine plasma donor recruitment

The aim of work on behaviour change is to explore the psychological mechanisms that produce behaviours (or not). This work also sets out models to influence these mechanisms.

There are two theoretical fields that make up the 'pillars' of behaviour change:

- **Forced compliance:** the term compliance refers to the fact that a behaviour is observed that the person would likely not have performed without interference. When the interference is 'forced', it is not welcomed by the individual.
- **Willing compliance**: in this case, the individual accepts the interference that alters their behaviour.

The paradigm of forced compliance raises ethical problems

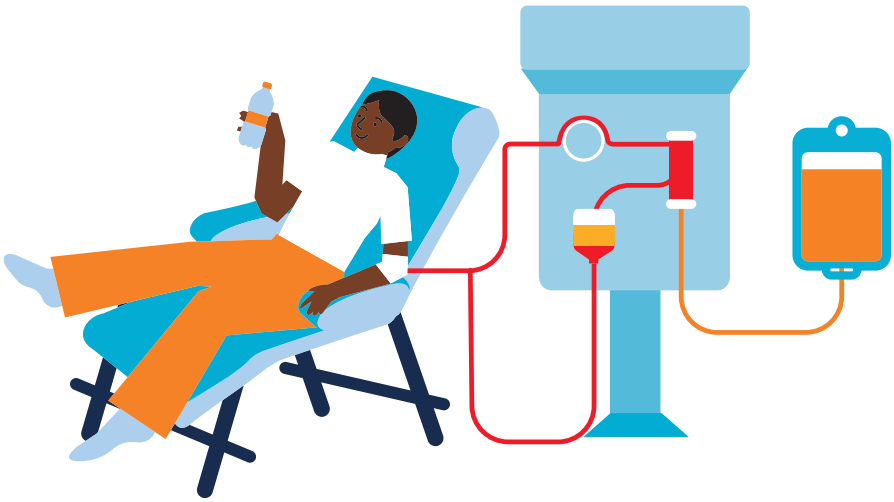
One of the ways of looking at behaviour change by forced compliance is to use the **psychological process known as 'cognitive dissonance'**. The theory of cognitive dissonance states that an individual, when confronted with two conflicting modes of thought (attitudes, behaviour, opinions, etc.), will feel an emotional discomfort. This discomfort will motivate the individual to correct the inconsistency between the two modes of thought in order to relieve the discomfort and, therefore, return to a state of emotional harmony. This theory has a counter-intuitive aspect: whereas common sense tells us that behaviour is guided by our internal structures (attitudes, beliefs, values, etc.), the theory of cognitive dissonance has shown that, through experiments, **our internal structures are often in reality forged by our behaviour**. In other words, the individual is led to behave in a way they would not have at first and will restructure their attitudes to be consistent with the action they have just taken.

We can easily imagine the direct applications of the question on plasma donation conversion: by getting donors to donate plasma using a cognitive dissonance protocol, they will likely internalise the behaviour and model their attitudes and future behaviour on this behaviour. However, **ethical questions must be raised when the use of this type of technique is being considered by an organisation like the French Blood Establishment**. The very principle of the techniques based on cognitive dissonance lies in the notion of creation of a 'fortuitous' state of psychological discomfort among individuals, so that they have no other bearable choice but to alter their behaviour or their attitudes while believing that they are the ones deciding. Although everyone regularly finds themselves in this type of situation, we believe that this theoretical field should remain outside EFS' practices as such an approach would explicitly breach the voluntary nature of donation.

Willing compliance

Willing compliance is **particularly suited to 'non-problematic' behaviour, that is to say behaviours that individuals are already motivated to perform**. Voluntary blood or plasma donation unquestionably falls within this category of behaviour. Within the framework of plasma donation conversion, the idea is to accompany blood donors who are favourable to conversion, but who, despite that, would refuse to take the plunge. The subtlety with regard to the forced compliance paradigm lies in the fact that the pressure exerted on individuals is substantially lower, and therefore is more respectful of the individual.
The main models falling under this theoretical scope notably include:

- **The Theory of Planned Behaviour (TPB):** this model **reduces the determinants of behaviour to a small number of factors**: attitude (cognitive, emotional, conative) to behaviour (good/bad, useful/useless, dangerous/safe,



etc.); perceived subjective norms (what are those around me doing? Are the people around me pressuring me to do it?), and perceived behavioural control/ self-efficacy (does the behaviour depend solely on me? Am I able to succeed with this behaviour?). Extensive TPB models exist for blood/plasma donation, incorporating other factors and thus strengthening the model, such as the level of anxiety at the idea of donating and the level of anticipated regret at the idea of not donating in the future. Furthermore, studies show that intention predicts the return to donation up to a certain point, from which **habit becomes the best predictor of return to donation**. In other words, it is important to also work on setting a donation routine to quickly reinforce donor commitment.

- **Implementation intention**: despite the strategies that can be put in place using the TPB, there remains a gap between intention and behaviour: **a significant share of individuals that say they have strong intentions to do something do not seize the opportunity when it comes around**. Implementation intention techniques help bridge this gap. The principle is simple, and consists of leading individuals to very specifically identify 1) the barriers that could prevent them performing a behaviour and 2) the opportunities to perform this behaviour. **The individuals must subsequently be accompanied by anticipating their reactions** when they encounter the pre-identified barriers or opportunities. Implementation intention can be put in place in a roundabout way (for example, using an information medium) or much more explicitly, which is the approach we would recommend (for example, through questions directly to the donor during an interview or via a questionnaire). For instance, as part of a first stage, the donor may identify the barriers that concern them from among a list of barriers to donation. Then secondly, the donor may identify the reactions they could have to remove or circumvent each of these barriers. This anticipation enables the donor, when the opportunity arises, to know how to react.

- **The Self-Determination Theory (SDT)**: the SDT focuses on the types of motivations (intrinsic/extrinsic), on their role in an individual's cognitive and social development, how social and cultural factors facilitate or hinder motivation, and lastly on the conditions needed to maintain high levels of autonomy ("I am behind my behaviour"), competence ("My behaviour is effective") and relatedness ("My behaviour is consistent with the social groups which I belong to"). These three elements help improve the quality of individuals' motivation. The model posits that **individuals are more likely to persist and invest in a behaviour when their motivations are intrinsic rather than extrinsic** (for example, students whose intrinsic motivations are encouraged show greater perseverance, better performance and better attention than students whose extrinsic motivations are encouraged). Regarding blood donation, a study shows that the use of a motivational interview for donors was beneficial to their motivation.

What distinguishes plasma donors from blood donors?

Various surveys and studies have shown that **the motivations of plasma donors are comparable to those of blood donors**: altruism, perceived utility, satisfaction, personal pride and appeals from EFS. In contrast, **there are significant differences with regard to the perceived barriers to donation, plasma donation being seen as more restrictive**. The barriers identified are the distance from the donation site, lack of time, fear of fainting, anxiety linked to red blood cells return; anxiety linked to pain, and more generally a set of false pretences regarding plasma donation (two needles, bigger needles, 4-hour duration, collection via bone puncture, etc.).

There are thus several donor profiles, ranging from non-donors to apheresis donors, who are distinguished by their perceived barriers. Those that feel the least anxiety towards donation are naturally the most likely to go further in their donation. Effective recruitment messages could therefore co**nceivably be developed while helping remove the barriers to donation**, so as to try to focus as much as possible on a single profile of donors generally unworried by the idea of donation. This approach seems to be better than an approach designed to enhance already strong motivations

Recruiting plasma donor from non-blood donors: a means to increase donations?

Few works of scientific literature focus on the question of direct recruitment of plasma donors from among a population of non-donors.

It can be assumed, however, that since existing publications show that the barriers currently identified among non-donors are greater than among donors, **direct recruitment is more difficult than converting blood donors to plasma donation**. The effectiveness of approaches centred on removing barriers should therefore be evaluated within the specific framework of direct recruitment of plasma donors. Furthermore, the **poor understanding of what plasma donation is within the general population** is likely to prove a major obstacle to recruitment.

Moreover, guidelines on increasing conversion to plasma donation and the few initiatives put in place locally in terms of direct recruitment have led to the emergence of **a set of reservations not on the part of donors and non-donors, but on the part of EFS professionals**. The development of recruitment practices, whether conversion or direct recruitment, cannot take place without clear identification of these reservations, and support for change management. The question of direct recruitment, in particular, seems to generate a certain number of concerns.

THE ACTIONS RECOMMENDED BY THE EFS SOCIAL LAB TO INCREASE THE NUMBER OF PLASMA DONATIONS

At an operational level

» **Converting blood donors is the quickest solution to put in place** since it is the most simple and least costly in terms of organisation for EFS currently. It also avoids the phenomenon of competition between two types of donation (blood/plasma) and allows EFS to better control the balance between the two channels. The risks regarding self-sufficiency in blood products are therefore reduced. This strategy allows for the gradual commitment of the donor to donation.

» **Regarding the specialisation of plasma donors** (in contrast to a strategy where donors give both plasma and blood), an additional report from the EFS Social Lab and research are necessary to evaluate the effectiveness and risks.

» **Ensuring co-construction**, with staff concerned/members of ADSB, tools and practices developed to unite the different stakeholders that promote donation.

» Incorporating new elements of language in **training content** for staff to enable donor-centred communication (identification and support with anxiety, factual and neutral presentation of the required donation time, etc.). Beyond elements of language, the training content should also include elements related to the barriers previously identified among staff in order to remove them especially in the case of the implementation of direct recruitment strategies for plasma donors.

» Developing materials (videos, paper, web, etc.) **centred on the donor and their barriers to donation** to facilitate the educational efforts of staff. This more targeted information must help 1) reduce the anxiety of the donor at the idea of donating plasma, 2) increase the perceived capacity to donate plasma, and 3) allay certain concerns relating to a lack of knowledge.

» It is vital that information and awareness of plasma donation is **systematically provided by the staff carrying out the collection**, the moment of donation being an important moment to raise awareness and reinforce donor commitment. Support for collection teams in relation to these questions is both necessary and planned.

» Regarding conversion, the efforts to **simplify appointment bookings** must be continued, along with encouragement to make an appointment at blood donation centres.

» Regarding direct recruitment of plasma donors, **the practices in other countries** must continue to be monitored in order to draw lessons.

Research recommendations

» There appears to be several questions that merit examination **when it comes to removing barriers**:

- Is the approach centred on removing barriers only effective in a context of conversation surrounding plasma donation or also in a context of direct recruitment among non-donors?
- What are the most effective arguments to convince people to donate their plasma (among blood donors and non-donors)?
- Is the approach consisting of removing the barriers identified among donors suited to all types of communication channels (email, telephone, social media, etc.) or is it only effective in face-to-face situations?
- Can invoking motivations to donate (altruism and utility) be effective among non-donors and therefore for direct recruitment? Moreover, can raising awareness of the dependence on the United States and its consequences constitute a motivation specific to plasma donation?

» **Among EFS staff**, barriers and reservations concerning the recruitment of plasma donors need to be identified to develop training and change management programmes. Knowledge from work in the field of human and social sciences on the question of donation should be incorporated into initial training. Lastly, it is important that the national strategy to plasma donation takes a long-term approach and that the initial work is carried out among professionals identified in advance and who are favourable to change. This will allow for a gradual change in attitudes.

» As the ultimate aim of recruitment is to ensure donors return regularly, we propose **carrying out an assessment of commitment to donation** over the long term using the Self-Determination Theory.

» Regarding the conversion of blood donors to plasma donation, we need to **identify the most appropriate moment to suggest to blood donors the idea of becoming involved in plasma donation** (before blood donation, during blood donation, during the snack, or at a certain interval from the last donation?). Moreover, the question of the credibility of the source of information must also be studied (welcome/snack point staff, doctor, nurses) as well as the ideal number of sources of information.

» Regarding direct recruitment of plasma donors, **studies must be conducted among new plasma donors** to assess their motivations for/barriers to donation, the overall quality of their donation experience, their intention to return, and indicators on return to donation in the medium term.

» Plasma donation and plasma in itself remain relatively unknown. It is therefore **vital to raise the profile of plasma and improve education on plasma donation**.

EFS SOCIAL LAB

WHAT IS THE EFS SOCIAL LAB?

The EFS Social Lab is the French Blood Establishment's system for listening to society and donors. Its mission is to improve knowledge of donors, people likely to donate or to impart or share information on blood donation by drawing on human and social sciences, and conducting donor surveys. It recommends actions to be taken to expand the Innovadon programme, which seeks to create a new donor experience, build on donor retention and to recruit new donors.

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