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The 28th of June 2007  
Ecole Nationale de la Santé Publique  
Rennes, France

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**Analysis of the Early Flexible Discharge  
Programme and its outcomes at  
the Sagesse maternity – Rennes in a European  
perspective**

*EUROPHAMILI - AESCULAPIUS*

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## ACKNOWLEDGMENT

First of all, we would like to express our sincere thanks and gratitude to the organisers of Europhamili programme from **ENSP**, who gave us the opportunity to meet and to work during our training in France with professionals from different institutions. The Europhamili programme also helped us to share and exchange experience and knowledge with players and experts in the health sector from different countries, as well as contributes for our professional advancement in the field of public health and health care management.

In particular, we would like to express our sincerest gratitude to:

**Dr. Dominique Ausell** – our field tutor, for her availability, openness, for the guidance during the whole process of preparation of our professional study, providing all kinds of useful information and for her enthusiasm to work together with us, wishing to exchange ideas with us.

**Eve Gallacier** – our academic tutor, who supervised the preparation of this study and directed our research, through her precious advice in order to be fulfilled all objectives of the study.

The Director of National School of Public Health from Rennes, who facilitated our work in this institution, offering us excellent working conditions.

Professionals at the Sagesse Clinic, for information provided our chosen theme.

We highly appreciate the kind efforts of **Martine Bellanger** and other persons who helped us in the preparation of our Professional study.

Special thanks are also due to our hosts, from the La Sagesse Clinic, who facilitated our training, providing us good working conditions in a pleasant atmosphere.

**The EUROPHAMILI trainers** for the knowledge we gained during our training in Rennes, on which we tried to put into practise by using different approaches in our professional study.

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## List of acronyms used

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**EU** - European Union

**GP** - General Practitioners

**ICONES** - Interventions Conseils Etudes Santé S.A.S.

**ANAES** - Agence Nationale d'Accréditation et d'Evaluation en Santé

**HAS** – La Haute Autorité de Santé

**HAD** – Hospitalisation a domicile

**NHS** - National Health System

**APN** – Advanced practice nurses

**UK** – United Kingdom

**EDP** – Early Discharge Program

**FDP** – Flexible Discharge Program

**DHOS** – Direction De l'Hospitalisation et de l'Organisation des Soins

**OECD** – Organisation for Economic Co-operation and Development

## **Part I**

### **INTRODUCTION**

Europhamili programme gives professionals from different countries the opportunity to improve their knowledge and to practice in various institutions, which perform activities related to health care management. From this point of view the authors of this paper had the privilege to work in the La Sagesse Clinic a non – for - profit private organisation in Rennes, and to analyse maternity care in the French health care system. Thus, we had the possibility to see what kind of services are here offered to women and their babies and which are the modalities used for the improvement of care quality.

In French maternities, as in many European countries, there is a special attention for improving maternity care, in order to assure a good health status for both the mother and her child. Nowadays, in maternities as well as in other specialized structures, length of stay for mother and newborns are progressively shortened. Newborn's observation times, more and more shortened, preoccupy paediatricians, who can not always diagnose potentially severe pathologies which could lead to hospital re-admission. Parents consider early return at home as indispensable, even if it might be in the same time source of fatigue and anxiety.

Child and mother early discharge is depending on the organisation of external network providing continuing care and making the following up safe. The tendency is therefore to propose an early discharge, if both the mother and child's status and the environment allow it, in order to decrease the length of hospital stay. But this practise is still subject to caution and surveillance conditions, as far as hospitals has been supposed to be the safest and most appropriate place to give birth in industrialised countries, especially in France, where a national "perinatal" plan was launched in the late 1970s to tackle high perinatal and neonatal mortality rates.

La Sagesse Clinic is one of French hospital which has showed a special attention to quality of care and to innovative care practises. That's why here in 2004 was started an Early Flexible Discharge (EFD) project, in order to improve the life conditions of mothers and their children given to those volunteer ones the opportunity to leave the maternity ward after a relative short stay.

The aim of this study is to analyse this EFP project, in a European perspective. More specifically, we would like to put the early discharge project in regards with a broader context of social protection, maternity care arrangements in Europe, with a particular stress for Romania and Bulgaria, the two countries, from which we are native. The first section will be dedicated to that purpose. The second section is focused on the EFP project in La Sagesse, the core of our individual study carried out during our placement. We will first analyse the interviews we conducted, and then discuss the main results before comparing to other French an international EDP (Early Discharge Programmes) experiences. Finally, we will present some conclusions and recommendations.

# BACKGROUND OF THE STUDY

The childbirths fall within the framework of different maternity policies according to each country. That's why, before analysing the early hospital discharge (chapter 3 Part I), we present the principal approaches of maternity protection in Europe (chapter 1 Part I) and of the organisation of maternity services (chapter 2 Part I). Our analysis is based on literature review, of which the main sources are the Max Planck Institute for Demographic research, the websites of the World Health Organisation, the American College of Nurses-Midwives.

Also, in approaching of each chapter we proposed to describe firstly European context, then to refer at the situation from France or our countries.

## 1. MATERNITY PROTECTION IN EUROPE

The maternity provisions in Europe reflect the political intention to provide income and job security to mothers during pregnancy and after childbirth. National legislation varies with regard to whether the leave is compulsory or optional, in reflection of prevailing attitudes towards women and their employment. Aspects of health prevail over aspects of care for newly-born children. However, in some countries the maternity legislation pays attention to the child's need for care, in that it grants a father the right to paternity leave at the time of the birth of his child and/or the right to protected leave and benefit in case the mother is ill or dies during her maternity-leave period.

Maternity protection and parental leave policies are core elements of family policies.

Despite the similarities of their social, economic, and demographic situations concerning women and childbirth, European countries took quite different roads towards maternity protection and maternity leaves, as described in the Max Plank institute working paper. "The continental European countries, especially Switzerland, Austria, and Germany, introduced compulsory maternity and care leaves for working women, thereby polarizing the tension between paid labour and motherhood. France pursued a "politics of motherhood" that supports all women as mothers, makes motherhood compatible with wage labour, and thus assists women in reconciling employment and motherhood. In Scandinavia, maternity leaves and protective labour legislation for women only were met with greater caution. Such policies were regarded as procedures that might increase gender segregation in the labour market and undermine the work toward gender equality"[1].

In continental Western Europe and in the United Kingdom, the length of maternity leave was reported to vary between the recommended minimal length of 14 weeks in Germany and 20 weeks in Italy, with 16 to 18 weeks as the most common length. Special regulations may apply in the case of premature or multiple births. France grants a longer maternity leave to mothers of three and more children (26 weeks). In the Scandinavian countries, maternity leave is largely integrated into the optional and gender-neutral parental leave scheme, although all countries reserve some part of the leave for mothers. In all countries maternity leave is a social right. Mothers on maternity leave are protected against dismissal and have the right to return to the same workplace [1].

In most of the countries, as it is stated in the working paper, only “the mothers who have been in insured employment are entitled to maternity benefits for the time of maternity leave. The same applies to fathers in countries that offer paternal leave at the time of the birth of a child (usually short-term leaves). Universal rights to maternity benefits are granted to mothers in Finland, Norway, and partly in Sweden and Denmark, but benefits are usually lower for mothers who have not been in employment prior to the birth of the child. A similar regulation exists in Austria, where since 2002 women without a prior employment record are entitled to a flat-rate benefit (as part of a universal parental-leave benefit)”[1].

## **1.1. Maternity protection in Romania**

Article 16 of the Constitution provides the equal rights of citizens and article 38 the right to work. The principle “equal pay for equal work” in case of women and men is provided in the Constitution, as well as in the Labour Code [2]. This code generally affirms a woman’s right to occupy any position based on her education and training.

The Labour Code specifies special treatment for women during pregnancy and when breastfeeding their children. Pregnant and breastfeeding women are prohibited from working during the night or where there are dangers and risks to health. If a pregnant or lactating woman must change her workplace to conform to the code, her pay may not be reduced. For childbirth, women are entitled to a paid leave of 112 days (52 days before the birth and 60 days afterwards). The rate of pay during maternity leave depends on the woman’s length of service, monthly wage, and number of children, ranging from 50% to 94% of her monthly base wage. For employees with three or more children, the pay during maternity leave is 94% of the monthly wage, regardless of the length of employment, thus providing incentives for giving birth to more children.

Maternity leave may be combined with family leave to take care of children under the age of two. This leave may be taken by either parent. Provided the parent has worked at least six months, the amount of paid leave is 85% of the monthly base wage and is paid out of the social insurance budget.[2] Women are granted the right to paid medical leave for taking care of a sick child up to the age of three. Women taking care of children up to six years old may work half time without losing any seniority. A woman's employment contract may not be terminated while she is pregnant, breastfeeding or taking a medical leave to tend to a sick child. Teachers may take a break of up to three years in order to raise children with a guarantee of keeping their job. In practice, private employers avoid paying for maternity and other leaves simply by hiring women without a contract. This is obviously illegal and prejudicial, and deprives women of their social security, health care, and record of employment for pensions, unemployment and other benefits. This "illegal" labour market does, however, observe some rules such as the minimum wage law in order to avoid overt governmental intervention. Temporary or short-term work contracts are other devices used to avoid paying maternity leave. It should also be noted that those self-employed in agriculture, along with their family members over 15 years of age who perform unpaid household work (or other unpaid work) are entitled to birth and maternity benefits.

A very recent victory for women's rights was the adoption by Parliament of the Act on Paternal Leave. This Act aims at ensuring the effective participation of fathers as caretakers for their newborns. The father of a newborn is entitled to five leave work days. If he participates in the state social insurance system, the paternal leave is paid for. If the father does compulsory military service, he is entitled to seven leave days. If the mother dies during childbirth or maternity leave, the father is entitled to the remainder of the maternal leave, benefits included.

Social insurance and other related benefits are assured only in the public sector, and, given the deteriorating economic situation, collective bargaining agreements between public employers and employees are tending to include concessions regarding benefits.

## **1.2. Maternity protection in Bulgaria**

Bulgaria does have protective legislation for women: Article 307 of the Labour Code prohibits jobs that are physically strenuous and hazardous to the health of women (and mothers in particular). This prohibition is based on ILO Convention No 3 and is related to the biological

functions and physiology of women. The comprehensive list of such activities is included in Ordinance No 7 of 1987. In addition, pregnant women and women with children under three years of age may not be sent on business trips or assigned to night shifts. Employees who are pregnant or have children under the age of three may not be dismissed from their jobs on these grounds. Bulgarian law allows maternity leave for 135 days from the birth of the child. During this leave, a worker's salary and professional status are maintained and supplementary paid childcare leave is available until the child reaches the age of two. In the latter case, the mother receives the national minimum salary and other benefits such as a child allowance. Unpaid leave may also be taken until the child reaches the age of three. However, protective legislation may have an adverse effect and lead to hidden discrimination and inequality in the labour market. When women are prohibited from night work and overtime, they miss the opportunity to earn the higher wages such work usually pays, and thus become disadvantaged compared to their male colleagues. The prohibitions on business trips (which pose no particular health risks in an early or healthy pregnancy, or to mothers) may also be detrimental to a woman's career development. Such legislation denies women the power to make their own informed choices and puts them at a disadvantage in the workforce. Another Bulgarian author has suggested that the provisions prohibiting business trips, night work and overtime should be edited to reflect gender-neutral language so that both parents would be entitled to equal protection when raising the child. Otherwise, the provision seems to infer that the parental role belongs only to the woman-mother[3].

## 2. MATERNITY SERVICES IN EUROPE

Maternity services in Europe are likely to come under greater pressure in the future. Changes are likely to occur due to a new social context regarding the role of the child in the family and the social role of the women, while the hospital could not be the unique place to give birth. Bosanquet *et al.* insist on this particularly. “Reforms to patient choice and funding would enable the development of more midwifery led units and more home births with close links to centres which can offer emergency care and rapid transfer when difficulties do arise. The health reform principles apply just as much to maternity services as to elective services”[4].

According to Bosanquet, in England and Wales the birth number has fallen slowly from a peak of 706,000 in 1990 to 643,000 in 2004. 98 per cent take place in hospital or other type of maternity unit, and over 99 per cent within the NHS [4]. Since 1973 there has been a steady fall in the number of maternity units. Wherever the truth lies, the numbers of maternity units is falling and the fall has occurred predominantly among smaller units, those conducting less than 2,000 deliveries annually. The largest English unit is Liverpool Maternity with 8,084 deliveries in 2003.

To put this in perspective, the authors compare with the situation in other similar European countries. For instance, the largest maternity unit in Germany is the Humboldt maternity department in Berlin which, after the closure of two smaller units nearby, now has just over 3,000 deliveries per year. Very few other units in Germany have more than 2,000 deliveries per year. The Höchst hospital, the largest maternity unit in Frankfurt, had 1,800 deliveries in 2004.

France has also “centralised” maternity care as England but to a smaller extent. The Jeanne de Flandre Hospital in Lille, the largest maternity hospital mentioned by the authors for France, had just over 4,000 births a year. The justification for this centralisation has been to save money and improve patient safety but the effect has been to remove patient choice [4].

### 2.1. The role of the midwives in maternity care

The midwife numbers expressed as midwives per 100,000 populations vary from country to country. The figure for England is approximately 38 per 100,000.[4] It appears that only in Europe only Poland has more midwives as shown in Table 1 below:

**Table 1****Midwives per 100,000 population, 2000-2002**

	<b>France</b>	<b>Germany</b>	<b>Holland</b>	<b>Denmark</b>	<b>Poland</b>
2002	25,34	10,44	11,3	22,32	56,87
2001	24,88	9,53	10,75	22,3	56,53
2000	24,37	9,35	10,22	21,08	56,92

Source: World Health Organisation, American College of Nurses-Midwives

In many countries, according to Bosanquet *et al.*, the majority of normal deliveries are performed by doctors, assisted by obstetric nurses. Midwives, as independent professionals, conduct very few deliveries. Even in the Netherlands, long famed for the high number of deliveries performed at home by midwives, the majority of deliveries take place in hospital where doctors supervise the delivery with an obstetric nurse. The obstetric nurses are not included in international midwifery statistics [4].

One of the main issue is access to “skilled care before, during, and after birth is crucial to saving the lives of mothers and newborns”. Wold et al. showed that countries which have been actively striving towards skilled care have seen their maternal and newborn mortality rates drop [5]. But some conditions have to be respected, accordingly. Abou-Zahr recalled that “to achieve the coverage that is required; midwives, nurses and physicians with midwifery skills must be available at every level of health care. The key link in the chain in reducing maternal mortality is the persons with midwifery skills who can handle normal deliveries, recognize complications, and either manage them or refer them to the higher level of care. These persons should be professionally trained, properly supervised, and provided with adequate equipment and supplies”[6].

It has to be noted, following Bosanquet *et al.* that “continuity of care models implemented by midwives who follow women from prenatal care through post-natal care offer additional quality of care outcomes in addition to those previously described”. Several large studies carried out in the UK found that “low risk women who had continuity of care were less likely to be admitted to the hospital antenatal, more likely to attend antenatal education programs, and were more satisfied with care compared to usual care. The satisfaction was associated with appreciation for psychosocial aspects of care that empowered the women to feel more in control of decision making”[5]. The quality of care for mothers and their babies have been improved as well. These approaches are therefore to be developed in the early discharge perspective we will present below.

## 2.2. The role of Primary Health Care in maternity services

In the UK where the system is primary health care based, interventions by advanced practice nurses (APN) have resulted in reduced health care costs, and improved health outcomes for clients. The results presented in Bosanquet et al showed that “randomized control trials investigating comparable care, patient satisfaction, cost effectiveness and prevention of re-hospitalization have all exhibited the positive aspects of using APNs. In health care systems that may experience long waits for appointments, APNs can offer comparable service while reducing wait times for clients with minor illnesses. Additionally, general practice nurse run clinics were found to be practical to implement, and were effective in preventing future cardiovascular mortality and reduced diabetic complications among patients living in the community). Of course, the amount of cost savings from APN care depends to a great extent of the context of the healthcare delivery system”[5].

We can note that the provision of maternity care and the access to midwifery services vary across industrialized countries and across Europe In the study conducted by Wold, it is possible to compare. For instance, in “Finland and Sweden the midwife is the main care provider for low-risk pregnant woman; in Denmark, the UK, Ireland and the Netherlands the midwife is part of a shared care team of providers made up of midwives, general practitioners and obstetricians. In Hungary, UK, Sweden, Finland, and Ireland midwives or public health nurses make regular home visits during the postnatal period” [5].

The same comparison was made regarding home births. Although the practised are common in several industrialized countries, for Wold, “they need to incorporate midwifery care into the existing health system and have a readily accessible referral system should a complication arise. Several studies compared the outcomes of home births with those that occur in hospitals to demonstrate that it is possible to have similarly safe birth outcomes at home. One of study found that for women with low risk pregnancies, the outcomes of planned home births are at least as good as planned hospital births for first time pregnant women, while outcomes of planned home births are significantly better for women with more than one previous pregnancy” [5].

Midwives and occasionally general practitioners provide maternity care for normal pregnancies and refer clients to an obstetrician in case of a complication. The investigator suggested “that in order to maintain confidence in home births, only low risk pregnant women

should be given the opportunity to deliver at home and home births require access to specialist care for unexpected complications. Cooperation between midwives and obstetricians is essential to ensure that women receive the care they need”.

## 2.3. Maternity services in Romania

The political process of EU adhesion has dominated reform in Romanian health sector. No major changes are expected in health policy in the coming years. The process emphasizes the enforcement of the EU *acquis* in the relevant health areas. The reform efforts so far have incorporated all key stakeholders, both within and outside the health system. In 2004, the Ministry of Health launched its two new strategies on public health and on rationalizing the hospital sector.

Maternal and child health are considered as public health priorities for Romania because perinatal conditions are among the tenth causes of morbidity in our country (Table 2). The infantile mortality rate is the highest in European Union countries (16, 84‰ in 2004) and maternal deaths per 100 000 live births is 24,05.[7]

According to Health For All statistics (2004) 98% of Romanian women delivery in hospital.

**Table 2**

**Disease burden in Romania and in the EU**

Cause	Share of disease burden (%)		
	Romania	EU 15	EU 10
Cardiovascular disease	27	17	22
Neuropsychiatric disorders	18	27	21
Cancer/Malignant neoplasm	12	17	16
Unintentional injuries	9	6	9
Non-infectious respiratory diseases	3	7	3
Infectious and parasitic diseases	3	2	2
Respiratory infections	3	1	1
<b>Perinatal conditions</b>	<b>2</b>	<b>1</b>	<b>1</b>
Intentional injuries	2	2	3
Diabetes	2	2	2

Source: Health and social welfare policies – International experiences, French perspectives. Focus on the Balkan region, Forum International 2007, vol.II ENSP Rennes, 14-15 march [8]

## **Prenatal and postnatal monitoring**

In Romania, the evolution monitoring of pregnancy and postnatal period, child physic and psychomotor development and immunisations, are prophylactic services which are assured by National Health Insurance Fund, independent of women' insurant status. Health insurance becomes compulsory when a woman signs a work contract.

In the Reproductive health survey Romania made by Ministry of Health in 2004 is précised that the main sources of prenatal care were family physicians (40%) and public or private offices of obstetricians (36%). Women in rural areas have as main source of their prenatal care the family doctor in comparison with women from urban which are monitored in principal by obstetricians. More than two-thirds (69%) of the deliveries were assisted by obstetricians, either alone (15%) or together with a nurse (54%). One of every five urban women and nearly two of every five rural women were assisted during delivery by a nurse only. The greatest differences in assistance during delivery appear to be related to socio-economic status. Among women in the lowest socio-economic group, only a little more than half (54%) were attended by a physician (either alone or with a midwife), while more than 90% of those in the higher socio-economic group were assisted by a physician.[9]

Regarding maternity care provided by family doctors, these are involved both in prenatal and postnatal monitoring. They are obliged by law to register on their list the pregnant women which are unregistered in other physician list and come to them for the first consultation, in their locality of residence. This registration can be made at demand of the community assistant too.

Within health assurance system the family doctor has the following duties:

- To provide medical care in emergencies when it is necessary
- To consult monthly pregnant woman in the first six months and in next months prior to delivery, when is necessary it
- To indicate a specialised consultation made by an obstetrician or other specialist, when does exists a pathologic pregnancy or when he considers that.

In the same time, if an insurant woman is not present at periodic preventive consultations and cannot justify that, she can be obliged to pay any costs of the curative treatment for disease unfound in time.

In the first 24 hours after discharge from maternity, the family doctor is obliged to visit the mother and baby at their domicile in order to check their health status. Also, he has to consult the child in the 1, 2,4,6,9,12,15,18 months after discharge from maternity.

Together with newborn supervision, the family doctor and nurse follow up weekly the evolution of the woman lately confined.

In the third and sixth week after birth is compulsory as family doctor or obstetrician specialist to examine the woman lately confined. In the time of the consultation which take place in the third week, recommendations about contraception have to be addressed.

The family doctors are obliged to register automatically the children which are not registered in other doctor list, while realise the first consultation of ill child in his locality of residence.

Newborns are registered on the list of family doctor which cared the pregnant, if the parents have not other options. They have not right to refuse children registering in their list, either it is required by mother, health insurance home or Child Protection Direction and community assistant (for the children in difficulty from placement centres).

The women which are not insurant benefit only of services as pregnancy and confinement monitoring and solving of medico - surgical emergencies.

In the field of pregnant care there are protocols elaborated of diagnosis and care.

At primary care level, for example, the first prenatal consultation is very important, because it represent the first evaluation of the case. With this occasion, the family doctor elaborates "Annex for medical following of the pregnant" at Patient File and fills needed data in „Pregnant Dossier" [10]. The later represent a work tool for monitoring on whole period of pregnancy and has the role to assure o objective communication between different professionals involved in woman care.

Within family doctors' consultations the pregnant women have priority.

Taking in charge is made usually early, in the first term, knowing that the prenatal consultation efficacy means to see the woman in the first 6-8 weeks of pregnancy. All medical personnel has obligation to know prenatal consultation importance and to directions early all pregnant for to be take in charge and follow throughout their pregnancy.

Obstetricians, gynaecologists from public and private system have also duty to give a special attention to pregnant women and to realise all activities provided by standards. Also a special attention is given "at risk" pregnancy and primary care network play an important role.

## 2.4. Maternity services in Bulgaria

The demographic changes that were observed in all the Eastern European countries in the last 15 years have not surpassed Bulgaria. Only for 15 years (from 1986 until 2001) the population has decreased with one million, which is a result from the negative natural increase and the high emigration. The drop of birth rates and the decline of marriage rates have started already in the 1980s, but these changes increased in speed after 1990 and reached values never observed before in the history of Bulgaria. Since 1997 a slight stabilization has appeared as the fertility recovers and the negative values of the natural increase get lower. However, the values of these coefficients are far away from the ones observed before the start of the transition of the country towards a market economy.[11]

### Prenatal and postnatal monitoring

In Bulgaria all the services provided during the pregnancy, delivery and post natal monitoring are absolutely covered by the National health Insurance Fund. According to the exigencies, obligatory health insured with the National Health Insurance Fund are:

- All Bulgarian citizens who are not citizens of another state;
- Bulgarian citizens who are also citizens of another state and live permanently within the territory of the Republic of Bulgaria;
- Foreign citizens or people without citizenship who have been allowed for a long-term stay in the Republic of Bulgaria, unless otherwise provided by an international agreement to which Bulgaria is a party;
- The people with granted refugee status, humanitarian status or with a granted right to refuge. [12]

If the pregnant women respond to these conditions they can benefit from the package of services determined in the National Framework Agreement (a specific Act).

The antenatal care has existed since the end of 19<sup>th</sup> and the beginning of 20<sup>th</sup> century. But, its role has increased over the last decades linked with the decreasing trend of the childbirth rate, with the small number of pregnant women, deliveries and children in the family and the necessity to assure each pregnancy and child.

Following the specific Act of health Insurance, the beginning of the pregnancy start with visit to the GP, who has the role of gatekeeper. He will give reference to the women for their consultation, taking into account the criteria – geographical area and woman's wishes.

Usually the women's consultation is conducted in the specialized maternity clinics or in the maternity units in the big hospitals. The professionals involved consist generally in midwives and obstetricians.

The prenatal /antenatal/ care, or the care before delivery, is attainment of the modern society. These are: - prophylactic; - diagnostic; - and some therapeutic events /cares/ during the pregnancy, which aim at saving the mother's health, at preventing the complexities, at assuring live and health fetus and health generation. The perception is that almost obligatory visits of women's consultations are once monthly till the 32<sup>nd</sup> gestation week, twice between 32<sup>nd</sup> and 36<sup>th</sup> gestation week and once a week till the delivery. The number of visits differs from other EU countries, for example in England, the pregnant women have in average 10 visits during the pregnancy, in Switzerland and Luxembourg in average 5, in the Netherlands and Finland 14 [13]. In Bulgaria, the principle is that for a risky pregnancy the number of visits increases.

The delivery assistance is performed by the midwives, except in the cases with complexities or pathology. During the postnatal period, the General Practitioner and also pediatrician and midwives are involved. 24 hours after discharge the mother and the newborn are visited by the GP at their home. Then, the pediatrician perform child's consultations weekly in order to follow up the weight, height and the general health status of the newborn. After the first month the women have to visit her GP or midwife respectively for a check up of her health attitude [13].

The Health Insurance Act also concerns the question of the new born insurance coverage. Except if the wishes of the mother were others, her GP includes the baby in his registers.

### **3. EARLY DISCHARGE IN MATERNITY**

Over the last ten years, the trend of decreasing hospital length of stays, mainly for cost containment reasons, do not avoid obstetric and paediatric services, especially services from public sector. In the same time the neonatal period represent for baby and mother a vulnerable moment, both at somatic level and psychic level, hereby their return at home after delivery need a special attention.

Technological advances have contributed to improve maternal and infant outcomes. In parallel, women have become more involved in their obstetric care: wanting to be more informed, to be able to make choices and have a "normalised" childbirth. One initiative aimed at normalising the process has been early discharge programs, enabling women to return home earlier after childbirth than had been traditional.

Women's desire for early discharge has fitted in well with the financial constraints put upon health care systems; reduced length of stay is seen as desirable because it reduces the cost of obstetric care. Postpartum studies have reported early-discharge programs to be a safe, cost-effective and satisfying alternative to the standard length of hospital stay among low-risk mothers and their infants [14].

According to generally accepted standards of maternity care, the newborn and mother care in the immediate postnatal/postpartum period should be provided at the delivery site. These care include monitoring and support to ensure the infant's stabilization during the initial physiologic transition from intrauterine to extra uterine environments, performance of recommended immunizations, obligatory screening for genetic disorders, and assessment of major medical risk factors. Standard inpatient care for mothers in the immediate postpartum period has also included instruction on infant and self-care, and training in breastfeeding and lactation support.

#### **3.1. Early discharge in the maternities from different countries**

Length of stay in maternity for mother and baby, which classically was 5-7 days in case of vaginal delivery and 7-10 days for a caesarean intervention, has been progressively decreased, especially in public maternities, respectively to 3-4 days and 5-6 days.[15]

The optimal number of days in hospital has often become a matter of debate, focusing on the merits and disadvantages of so called 'early discharge', usually meaning discharge from the hospital for both mother and baby at less than 48 (after uncomplicated vaginal delivery) or less than 96 (after caesarean section) hours following the birth.[16].

In practice, this vary from country to country and is frequently considered as "early" whether it emerges before of the third and fifth days of a normal delivery, respectively for caesarean delivery. In OECD countries with a high standard of medical care, the duration of the postpartum hospital stay is strongly reduced, as shown in Table 3. In each country the postpartum care is being developed differently, although the overall aim is the same: to detect health problems of mother and/or baby at an early stage, to encourage breastfeeding and to give families a good start.[17]

**Table 3**

**Average length of hospital stay (in days) after normal childbirth, in selected OECD-countries**

	1995	2000	2001	2002
<b>Norway</b>	4.4	4.0	3.9	3.9
<b>Finland</b>	4.1	3.7	3.7	3.6
<b>Sweden</b>	3.1	2.8	2.6	2.6
<b>Denmark</b>	3.2	3.2	3.1	3.0
<b>Germany</b>	5.8	4.7	4.6	4.4
<b>UK</b>	2.4	2.1	2.0	1.9
<b>Belgium</b>	5.4	5.3	5.2	5.1
<b>Switzerland</b>	6.2	6.0	6.3	5.9
<b>Italy</b>	–	3.9	3.8	3.7
<b>United States</b>	1.5	2.0	1.9	1.9
<b>Canada</b>	2.2	2.0	2.0	2.0
<b>Australia</b>	3.5	2.9	2.9	2.8
<b>New Zealand</b>	2.8	2.0	2.0	2.0

Source: OECD Health Data 2005.[17]

The general criteria in order to be authorised for this kind of discharge are: gestational age, parity (especially multiparas), way of delivery (vaginal and caesarean delivery and uncomplicated) and favourable evolution for mother and child. [18]

It is important to note that this evolution is observed in all industrialised countries, with the inconvenient and therefore with the necessity of establishing rules.

In the USA from 1970 to 1992 length of stay has decreased of 37% and 46% for normal delivery, and caesarean, respectively. This attitude was followed by many paediatric complications: breastfeeding difficulties, low weight, deshidratation, grave icterus etc. Following this fact, USA government has voted a special law for health protection of mother and child, which fixed minim limit of two days after a vaginal delivery and 4 days after caesarean delivery. [19]. Also were made recommendations for perinatal care in postpartum period for mother and child in Guidelines for Perinatal Care. These precise selection criteria for mother and baby in case of early return and propose a protocol of follow up at home.

Many studies were made in this country connected with early discharges and its consequences and one of them, showed that newborns discharged within 30 hours of birth are at increased risk of death within the first year of life [20].

Dutch maternity care is different from maternity care in other developed countries for a number of reasons of which the place of birth is the most obvious, with a home birth rate of 30%, throughout the last decade, compared with a home birth rate of 1% or less in other western countries. The organization of postpartum care is another notable but less well-known difference. Since the early years of the previous century professional postpartum care at home was advocated in the Netherlands, especially for poor women, because it was recognized that giving children a good start in life was one of the most important contributions to the reduction of infant mortality [17].

### **3.2. Early discharge in French maternities**

In France, a reflection was made on early discharge and was carried out by teams which adopted diverse solutions.[21]. The condition of taking in place are written in a ANAES (Agence National d'Accréditation et d'Evaluation en Santé) Report.[22]. Since 2004 High Health Authority (La Haute Autorité de Santé- HAS) has taken back the mission of ANAES. In this report are established eligibility criteria, physic and psychic, maternal and neonatal, the following modalities and adequate procedures.

The HAS report insists on particular points. The early discharge means many hazards and therefore has to be assured a reorganisation of maternity functioning and taken in place a deeply follow at home for mother and child. It is indispensable to evaluate carefully each situation, in the time of pregnancy and after delivery, in according with rigorous obstetrical, paediatric and psychosocial criteria. The early discharge could without consequences, and with condition be established and organised during pregnancy, together with parents, and not announced in the last moment.

This following up at home allows in fact the observation elements which are imperceptible in the hospital environment. It allows to the mothers, if they want it, to benefit from household help and to retrieve more rapidly their life environment.

In addition, this organisation requires vigilance and help from team which provides care in the short period spent by women in the hospital. Quality of home monitoring is likely connected with the assessment quality and help during stay in maternity. It implies both additional work for professionals from maternity during of stay, and secretary additional work in order to assure the coordination and communication of information.

There are many arguments for early discharge programs: the improvement of the relation between parents and child, decreasing in nosocomial infections and iatrogenic pathologies, cost decreasing, exposure of child at visual and audited stimulus. For children with problems: premature, low weight or an important pathology the early return can be assured in security conditions. It means a specialised and adequate monitoring in order to avoid all complications. Child return at home is seen by parents as being “fragile” and is for them a difficult phase which needs training in order to sustain and facilitate the relation with their baby.[15]

In summary, the means of monitoring after delivery, mentioned in the HAS Report [15] are multiple, but sometimes insufficiently coordinated and never well known by caregivers from maternity.

### Home hospitalisation

Home hospitalisation aims at avoiding hospital stay or decreasing its length of stay. This structure allows to be assured medical and paramedical care at patient home, these being connected to hospital. There are in many cities and is an authentic hospitalisation service depending on a hospital centre.

These conditions of functioning were defined by Decree No 92-1101/2Oct 1992 and Circular letter DHOS on 9 February 2004 [23].

This service, generally, is equipped with own hospital pharmacy, a dietetic service, a social and medical service for coordination. It appeals either salaried caregiver by home hospitalisation structures (HAD – French terms), either liberal professionals: medicines, midwives, nurse for children, recruited in addition to own personnel.

Home hospitalisation is organised during hospital stay and its cost are reimbursed by Health Insurance Fund. Many surveys showed that home hospitalisation is more cost-effectiveness than stay in hospital.[15]

Home hospitalisation can involve multiple sectors and in particular in perinatology.

### Obstetrical home hospitalisation

It allows a following of mother and her baby after early return (breastfeeding, weight of newborn, icterus) or in case of maternal pathology (scar care, episiotomy, anticoagulant treatment). It use liberal midwife salaried by home hospitalisation or not, with competence to follow up the mother and her child. Common period of monitoring is 5-7 days [15]. This service is a real relay of early discharge and particularly adapted to pathologic situations of mother.

### Paediatric home hospitalisation

It represents a phase towards family autonomy and means a specific medico-social relation in order to optimize child care and carry out his adaptation of him at familial environment.

It deals with the follow at home for all children which have a health status needing particular surveillance:

- Old premature who still need care ( aerosol, oxygen, enteral nutrition, respirator kinesytherapy)
- Premature with hypotrophy ( weight under 2000gramme)
- Terms newborns treated for neonatal infection or other pathologies
- Newborns having a malformation or an handicap (Down syndrome)
- Difficult psychosocial context which need a sanitary surveillance and education

## **PART II**

Everywhere in the world, hospital length of stay tends to decrease because hospital expenditures are very expensive. In France, as in the rest of Europe, the supply of maternity hospitals has progressively decreased over the past few decades. The health planners look for solutions for improving of obstetrical services in terms of quality of care and expenditures.

Nowadays, also Romania and Bulgaria face with similar problems. In our countries, which have been adhered at European Union at the beginning of this year, health reforms are ongoing and in the last time it have adopted many changes in order to improve health care quality and adapt to European standards. A major attention is accorded to rationalizing the hospital sector and improving reproductive health, health of the mother and child, respectively.

In this context and profiting to the occasion offered by Europhamili programme to make our study in La Sagesse clinic, we propose ourselves to see how the early flexible discharge from this clinic is working. Our high concern is also justified by the fact that in our countries do not exist yet thus programs.

# 1. MATERIAL AND METHODOLOGY

## Goal

The purpose of our study is to analyse in a European context, the personalised early discharge scheme within early flexible discharge program from La Sagesse Maternity.

## Objectives

1. analysing of early flexible discharge organisation
2. highlighting of the factors with a positively or negatively influence on the monitoring process
3. analysing satisfaction of the patients and professionals which are involved in this project

## Methodology

Our study is a descriptive study, mainly based on a critical analysis of documents. But, in order to make an objective evaluation, we considered that this method must be completed with the opinion of several key persons involved in program. Therefore we built an interview guidelines (view annex 1) consist of 12 open questions, structured on three items:

- General information
- Project organization
- Home following/visits

on which addressed to seven persons involved in project. These were proposed by our field tutor who is obstetrician in La Sagesse clinic and is also involved in the early flexible programme.

The interviewed persons were: the coordination midwife of the project, two obstetricians, an ICONES (Interventions Conseils Etudes Santé) representative, a midwife, a general practitioner and a secretary. The interviews took place in the period 23 April – 17 of May

2007 in La Sagesse Maternity and at ICONES institution, each person being interviewed without the presence of other persons. All asked persons accepted to be interviewed. The interviews were taken both in English language and in French and the average time was one hour and half.

### **Data collection**

Other data sources used beside these interviews with key persons were the following:

- Evaluations of Early Flexible Discharge Project made by de ICONES in the last two years;
- Previous professional studies of the Europhamili trainees;
- Discussions with our tutors (academic tutor and field tutors respectively) at our placement Site;
- Discussions with employees within La Sagesse Clinic
- Scientific articles
- ANAES recommandations

## 2. RESULTS

### Interviews results

We are presenting the results we obtained through the interviews. These are related to three main aspects: general information on the project, organisation of the EDP and finally home visits

#### 2.1. General information

Following interviews with key persons involved in The Flexible Discharge Program - FDP- (which is different from the EDP) organised in the Sagesse Clinic we are able to synthesise the more important information we got.

Regarding the history of this programme, it was defined and implemented firstly in 1999, as an experimental study (69 women from Rennes region have initially participated). Practically, the current programme has been implemented only since 2004. This program proposes to the couples or to the women who come to delivery in this establishment a personalized discharge in line with women's antecedents, delivery evolution, and women health status during hospitalisation, health status of newborn, along with a home monitoring in the post-partum period.

Prior to start this kind of program it was the idea, sustained by all interviewed, to regulate the hospitalisations without introducing the obligation of leaving of the maternity quicker. It means to obtain more free beds in the maternity, whilst improving pregnancies monitoring according with their needs and respecting the physiological rhythms of mother and baby. This idea emerged because the Sagesse clinic was not able to accept all the pregnant women who desire to deliver in its wards. Our interviewed gave us the main reasons being financial constraints and insufficient number of beds. Accordingly, the early discharges could have resulted in avoiding women relocation towards other structures and in keeping the pathological pregnancies which need a long stay in hospital.

All the key persons involved in this project presented it as a specific project which is different from the Early Discharge Program (EDP) known. The particularity of FDP in

comparison with existing models of early discharge in France, as well as in others countries in the world, comes from the wish to conserve flexibility – thus, choice - for the women. The program is not an obligation of early discharge of the women.

The interpretation of the flexibility can vary from one to another participant of the project. One obstetrician interviewed presented us two level of “flexibility” in this program:

- Flexibility means that the women can stay in the maternity as long as they wish. However there are some limits between a maximum of 5-6 days considered as normal and a minimum of 18 hours which is legal time accepted.

- Flexibility also means the possibility for all the women to leave – and enter – the program at every moment of the pregnancy until postpartum period.

Thus flexibility is understood as the adaptation of the maternity department to the needs of each woman, taking into account her particularities in order to ensure the quality of service provided to the mother and her newborn.

For another interviewed people, Flexible Discharge Program seems to be based on “a voluntary adhesion to this program without any financial implication for women”. The fact that the program is flexible could change a lot in the adhesion of women and their expectations to such a program. The possible increase of women engaged in it could also change the structure of the program.

To the question about beneficiaries, selection criteria and the way to find it out, we obtained different answers.

For some of the interviewed persons, the beneficiaries of this programme “can be all women who came to delivery at the clinic”, while for others, practically, there is a limitation of the number of women who can be enrolled exists. The latter explained us that each obstetrician from the maternity, for example, can include only a limited number of women in a month, within the project. Because of this limitation, there are some “ad hoc” selection criteria. The most frequently criteria mentioned are the following:

- Distance from patient domicile to clinic (geographic criteria)
- Women’ parity (multiparas are preferred)
- Women pathologies (are preferred normal pregnant without risk)

One of the obstetricians specified that firstly are taken into account the criteria established by High Health Authority, as: a good health status of the mother and newborn, women

competence and autonomy for breastfeeding, baby care and observation the alert signs and home following organised and competent, assured by professionals.

Generally (in line with received information by interlocutors) women receive information about Early Flexible Discharge either from their general practitioner or from the clinic they come for consultations. The secretary interviewed specified us that each woman who present to the clinic for a first consultation receives a medical folder, which contains information and schedules on the pregnancy pathway. At the admission office she is asked by personnel for her willing to enter this project. In case she wishes to participate in, immediately she is put in contact with the project coordinator midwife who provides her additional information. Usually, after this appointment follow up others, in the fourth and eight months of pregnancy. The eight month appointment is especially for the confirmation of participation or not in the programme.

According to our field tutor, who was one of the interviewed people involved in the FDP project, and to ICONES representative, the project is financed by the health insurance fund.

Regarding patient's satisfaction, the interviewed's answers is homogenous in the sense that we were told that "the women are generally very satisfied". The explanations given were: "because they came back early in their family and have the possibility to receive qualitative care and monitoring in own life environment". One of the interlocutors said us that the women are satisfied because "their baby adapt more quickly to the familial environment". This result is important enough for us, enabling to mobilise some economic perspective in terms of utility (i.e. satisfaction). At the stage of the study, we can say that the utility for home care after delivery is higher that this of hospital stay. This is consistent with some results presented in the literature review (3.5 part II). We will come back to this aspect in the discussion.

Professionals are also satisfied because they can provide personalised care and they note that a special relationship is created between them and the patients.

## **2.2. EFD Project organisation**

The project organisation was made within the experimental study at the beginning, and has been improved in the ongoing time.

The ICONES representatives and our tutor told us that there are different protocols and procedures which have to be respected by all actors involved in this project. Also has

created a dossier for pregnant monitoring, which contains both information about the pathway of pregnancy and information connected with early flexible discharge.

Partnerships were established with different partners, such as general practitioners, liberal midwives, nurses for children, liberal gynaecologists, paediatricians, associations for support at home. These partners follow up women throughout their pregnancy, in accordance with their competences. General practitioners are more involved in the prenatal monitoring than the postnatal one, while midwives are equally involved in the both periods, but also in intrapartum (only the midwives from the maternity). The paediatricians from clinic are more involved in the newborn consultation before discharge from maternity (which is compulsory) than post discharge period. In case of problems which could appear for the newborn after discharge the liberal paediatricians might be also involved.

The project has a coordinator midwife, which has an important responsibility, to assure a good collaboration between different stakeholders involved. She also maintains permanently the contact, physical or by phone, with women inscribed in the project. Thanks to the meetings before the delivery episode, she offers details about delivery preparation, home care, and discovery psychological and social problems and provides information about procedures in case of difficulties.

Monthly the coordinator midwife draws up an intermediary and geographic timetable of early discharges which contain also the estimated data that is handed in team from clinic. In her work, she is helped by a secretary who realises the inscription in the project, keeps the relation with women and contact with liberal professionals, and updates electronic dossier.

Regarding the way followed by women from enrolling in the project to discharge from maternity, it is described very well by the coordinator midwife, secretary and a midwife.

Following the registration in the project, an electronic file which contains personal data of the woman is filled. The coordinator midwife contacts her current physician in order to inform him about early discharge project and to ask him if he agreed to take in charge the woman home monitoring after discharge from the clinic. The woman can voluntarily participate into the training for delivery the maternity proposes.

When the delivery time is happening, the caregivers are informed in order to start preparations for it. The patient file is filled by the midwife from the maternity department, with mention "early flexible discharge" (in the first day after delivery is again confirmed the desire

of early return). If the delivery takes place in normal conditions and there is no complication, both the woman and her child are prepared for being discharged in the next three days.

The early return at home requires approvals from obstetrician, midwife (only in normal delivery), paediatrician and anaesthetist. If their agreement is obtained, the medical documentation for discharge is quickly prepared by a midwife and a child nurse. The declaration of birth is made and announced with priority at the city hall. Then, the midwife or the nurse from the maternity ward contacts the professionals involved in the woman home following up (team from maternity, liberal midwife or physician, household giver) and establish, in agreement with them, the timetable of the home visits. In case of problems they contact the coordinator midwife to organise this process.

The midwife interviewed stressed the fact that, during the maternity stay, is respected the woman's autonomy for the decision making (she gives the agreement for discharge, for personnel who provide care).

The described obstacles connected to the organisation of early flexible discharge were describes as follows:

- difficulty in the early discharge organisation during the week end and legal holidays, because the number of the personnel decreases;
- in the periods during which the coordinator midwife is absent from work, the organisation of discharges are made more difficult;
- difficulties in organising the early discharges for women living in Rennes surroundings, because here the women monitoring is especially made by the liberal professionals and their number in this project is being decreased.

### **2.3. Home visits**

The answers we got from the key persons interviewed are particularly informative regarding the conditions providing the success of the flexible return to home. First, the midwives team was reinforced through the increase of midwives number. Second, the work timetable was exchanged for them and for the child nurses. And finally, the necessary materials were provided for home visits. The changes occurred for these new organisations have an impact in terms of costs. There are two types of costs, direct personnel and material costs, but also indirect costs linked to the new organisation. The ICONES reports provide information for the first ones, as we will see below.

The home visits are scheduled during the woman's stay in the maternity, before her discharge. For discharges in week-end or in legal holidays is established in addition a telephonic conversation with the couple at their domicile.

For all newborns discharged in the third day or before is assured a paediatric visit between the fifth and the eighth day of which aim is "to check the health status of newborn and his adaptation to the external condition" (according to an interviewed midwife). The appointment is established in the discharge moment. It can be also made by a liberal paediatrician from ambulatory care or a current physician, if the paediatrician from maternity agrees.

The monitoring at home is made by:

- professionals from maternity (which are chosen in function of patients needs) and
- liberal professionals (midwife or general practitioner) which work either alone or together with a midwife or nurse for child from the clinic.

The latter have usually established in time of a previous contact with the coordinator midwife when they engage to take in charge both mother and child. In case of problems they can contact the clinic. They also have the possibility to learn at the maternity about postnatal following up practice.

Generally, the home visits are assured in a ten day period. The frequency of the visits is determined by the health status of the mother or the baby, and if they encounter problems or not. In certain situations, for example icterus which needs phototherapy, the mother and baby can be re-admitted in the clinic for a short period. Each of interventions /examination is mentioned by the professionals in the dossier of home visits for mother and child.

In case of emergencies, both during day and night, the clinic are obliged to receive the mother or child, whether their health status needs it. This obligation is valid for the ten days after delivery. In this sense all professionals, both from clinic and liberal practise are informed about this possibility and have to be prepared for it.

At the end of home following "file of mother follow at home", "file of child follow at home" and "the conclusion of early return" come back to the maternity secretariat. These are brought at clinic:

- either by patient with occasion the last visit to paediatrician when the home follow up is finished,
- either by the team from maternity at the last visit
- either by liberal physician or midwife which send it by post

Also each professional which was involved in home visits has to make an evaluation of care provided.

The principal positive points connected with home visits which were mentioned were

- establishing of a special relation between women and professionals
- mother is more calm and regain more quickly her confidence,
- the mother receives not only medical care but also personalised recommendations adapted to her needs.

Some negative points were also mentioned:

- Impossibility to intervene immediately in case of emergencies, due to the lack of equipment
- More documents which have to be completed after the follow up is finished

### 3. DISCUSSIONS

In this section, we will discuss the results obtained in our interviews and our literature review, keeping the same approach, on the three items: general aspects, project organisation and home visits. Then we will present some economic aspects and comparisons with other French and international experiences.

Early discharge in maternity is a recent and increasing practice in France, in comparison with other European countries, such as the so called English speaking ones.

Over the last years, the length of stay in the French maternities has tended to decrease. This happens because of the decrease of the number of the beds for obstetric units and of the increase of couples' demand for an early discharge. In certain institutions, one can see a decrease of length of stay and an increase of early discharges, but these are not accompanied by follow up at home.

The ICONES report states that in Rennes region, there are three institutions which follow up the women at home after their deliveries from maternity: a university hospital, a private-for-profit hospital and La Sagesse which a non- for profit hospital as mentioned above. [24]. The latter is a II level maternity ward, which means that it provides, in the same place as the maternity ward, neonatal services for intensive therapy.

#### 3.1. General aspects

In the Sagesse clinic as in other French hospitals, according to the above mentioned report, the length of stay in maternity, was in average 5 days for a delivery on vaginal delivery and 7 days for a uncomplicated caesarean operation. A length of stay  $\leq 3$  days in a vaginal delivery and respectively  $\leq 5$  days in caesarean is considered as being an early discharge.

Thanks to the good reputation of the clinic, more and more women from Rennes and surroundings choose to delivery here. In order to face this situation, but in the same time keeping the quality of services offered, the staff from clinic has defined and implemented a personalised early discharge, which is supposed to answer each patient's needs.

Regarding the activity within this project, the two ICONES reports showed that in the period 1<sup>st</sup> of September 2004 – 30<sup>th</sup> September 2005, 2122 deliveries were performed in the

Sagesse (19% of these within early flexible discharge) and in the period October 2005 – September 2006 counted 2158 births, 25% were represented by early flexible discharges [24] [25]. Detailed data about the number of early flexible discharges can be seen in the annex 2.

The women who have benefited from the EFD programme had an equal distribution between rural and urban area, the majority of them have one or more children and their deliveries were on normal way. The average length of stay in the maternity, within early flexible discharge was in average 3,7 for the two years of its functioning; therefore the average length of stay in the clinic was shortened.

Both our interviews and the analysis made by the institution which evaluates the project have highlighted that the most important output obtained within the EFD is the increase of the quality of care, expressed in terms of patient satisfaction. This can mean rapid access to information, good training, availability and accessibility to the staff. In fact, at the beginning La Sagesse followed up as this programme to assure women and their baby, especially those are in the risk group and have special needs, a better quality of care. The women participated in project are generally satisfied by the high quality of medical staff and equipment used and consider that because they regain more rapidly their forces after delivery. In the same time they appreciate good management practice, signals awareness, alertness and flexibility of the staff and the clinic.

Consequently, the clinic has improved the capacity in terms of free beds and days gained per women by shortening hospitalisation. Also, was reduced the number of women rejected by the clinic because of the shortage of beds. We presume, if our data are consistent that the number of deliveries has increased during these two years. Thus the revenue of the delivery activity could have increased for the Sagesse clinic (it is a hypothesis we have formulated, because we were not able to get the current figures).

In overall, professionals from clinic are rather more satisfied than unsatisfied: return of the women and their babies is well organized, as well as the organization planning of visits. The communication between teams which assure following up are perceived as acceptable, notably by means of dossier from the clinic. They affirm that during their visits at home is established a specific and qualitative relation with patients.

### **3.2. Project organisation**

The early flexible discharge programme was organised and implemented with the help of the evaluator institution – ICONES. This programme has worked on the basis of any protocols

and procedures established in the time of experimental study, but which have been improved in the ongoing time project, being adapted in function of new appeared situations.

In order to analyse the dossiers which were reported “with problems” or “particular dossiers” (as return in the first day after delivery and rehospitalisation), a meeting of staff project take place twice a year. In addition, women are called by phone for a better understanding of their difficulties or situations.

In addition, order to solve certain difficulties for the coordination and frequencies of visits was implemented for some patients phone contacts. For the women with psychiatric antecedents were also elaborated special procedures.

Regarding to information providing about early flexible discharge to the women this seems to be transmitted with difficulty. Many women complained that they receive the information too late. Although all the women at their inscription in the clinic receive “the pregnant dossier”, which contain besides information about pregnancy information about early flexible discharge programme, this seems for them not enough. Studying the dossier, we noted that the page which contains the information related to the EFD project is situated at the end and is less detailed. Similar results were found in a previous study carried out by our EUROPHAMILI colleagues in the clinic [26]. They also concluded that the women declared that they received little information about this programme from the staff. This output may explain why more than half of the women enter late in the project, so how said us one of our interviewed.

Coordination between professionals from the clinic and liberal practitioners was found as being satisfactory and effective and permit to avoid hospitalizations. This is an important result, in terms of improving the continuity of care. This is also an important issue for the French health care system, which is not enough integrated, conversely to many other European system. There is still room for progress.

### **3.3. Home visits**

The majority of visits at women domicile are made by the clinic team. Only a small number of liberal professionals are involved in this following (14,9% of cases are assured by liberal midwives and the general practitioners assure 1,4% - ICONES report 2004). From this result, it is important to find solutions in order to stimulate the liberal professionals’ participation in the project.

The number of couples followed up by a midwife or nurse for child is maximum 3 per half day. The times passed by the two for a consistent examination are in mean of 45 minutes. The average number of home visits is 1,6 in a period of ten days following a discharge and this is considered by the evaluator as insufficient. It considers also that “the minimum number of visits must thus become more systematic for the early discharge and ensure a minimum of medical supervision”.

However, the number of hospitalisations has decreased and the interviewed couples are satisfied by the number and quality of those visits that should mean that the interventions made at home are effective. The couples emphasize that flexible return has the advantage to respect mother and newborn rhythm within new their family and in these conditions they evolve rapidly and harmoniously. They also enjoy the professionalism of the interventions provided at home.

In only few cases where complains and these were connected to mother fatigue, the liability to come back at the clinic for the paediatric visit at the 9th day and help received for cleaning [24].

### **3.4. Economic aspects**

With regard to the cost of this programme, ICONES made a comparison between early flexible discharge and traditional hospital stay. The costs taken into account were direct costs linked to project organisation or coordination, medical visits and “cleaning help” at home.

In 2004 for example, by EFD it was saved about 40 000 euros and also were gained 1004 days per year or 2,7 days per women early discharged.

The direct costs of the early discharge project were found by the ICONES’ evaluation quasi similar to the costs of normal stay. Nevertheless we wonder whether introducing indirect costs in the calculation would not have given different results, thus higher costs for hospital stay.

In addition we can use a cost utility approach, according to the economic perspective. This leads to analyze the trade off between costs in the one hand, and the utility on the other one. In the mentioned study, the available costs have shown a relative similarity between the two practices. But, if we compare the utility of the two approaches: the ‘home care’ provides higher satisfaction for the mother, better well-being than hospital care. As far as, patients’ satisfaction can be used as a proxy for the quality/or utility of care for the patient, we can conclude that the utility is higher for early discharge while the costs are the same. Then, the trade off between the cost utility is positive and we can choose in favor of early discharge in that perspective. Our local result is consistent with other studies, at the French or

international levels, even if caution in interpreting results is still recommended, as we will see at the end of the following paragraph.

### **3. 5. Comparison with other French and international experiences**

The early discharge programmes can be met in several cities in France, and in our literature review we found a similar situation to this of the Sagesse clinic.

For example, this kind of experience has been developed in Lyon region since 1993. Maternity from Edouard Herriot University Hospital assists deliveries offering to women the possibility to be discharged earlier and to be followed at home. [27] In this institution, “traditional” lengths of stay are almost the same as the ones met at La Sagesse clinic: 4-5 days for a delivery on normal way and 7-8 days for a delivery caesarean intervention.

The women are enrolled voluntarily and the certification of the discharge is made by different professionals from the maternity, after a previous evaluation for both the mother and the baby. Patients can leave this type of following whenever they want it. Criteria of inclusion are large as in the Sagesse clinic and lengths of stays are about three days for a vaginal delivery and five days or less in a caesarean intervention.

The rate of early discharges is a priori established and represents 27% out of the total of births. Women and their babies are seen in the day following the discharge. The midwives carry out more visits per patient: 2,8 in average, in comparison with 1,6 at the Sagesse Clinic. These visits last in average 40 minutes, similar time we have found in La Sagesse clinic.

In the period 1994-2001, 14 patients and 4 babies needed one hospital readmission, which represent 0, 4% of couple’s mother – baby early discharged. This figure is lower than in the Sagesse clinic where the rate was found 0, 7% for mothers and 1% for babies (0, 3% for paediatric pathology) of re-admissions [26].

Another type of early discharge programme is perinatal network met in the Haute de Sein department (Perinat 92 Sud) [28] which is opened to all stakeholders involved in perinatal care. An HAD obstetrical is addressed to all women who come to delivery in a public assistance establishment and are earlier discharged. Because it is currently crowded, this network take in account only ultra – early discharges and the pathologies monitoring, the monitoring of the other women being made by liberal midwives. An HAD paediatric allow babies’ monitoring along with a paediatrician.

The review of French publications made by ANAES show that the majority interviewed families expressed their satisfaction connected to benefits brought by the early discharge programmes, accompanied by a return at home. The major positive points specified were decreasing of stay in maternity and an adequate following up at home. Quasi-totality of women wish to renew this experience for ulterior pregnancy.

Particularly, the survey of satisfaction carried out among early discharged women in Edouard Herriot Maternity from Lyon, shows that they were not returned early without to be proposed them visits at home realised by a midwife. Therefore they appreciated this availability and counselling. They also appreciated the possibility to recall the service in case of problems.[9]

From the Grenoble's experience (1985-1993) in following up at home [29] (return at 24 hours after delivery) showed that the satisfaction rate of women was excellent. The main reason of women's satisfaction was that monitoring at domicile improves relation mother – baby. Quasi-totality of women declared that wish to renew this choice for ulterior delivery.

Another randomised study has recently been realised in Switzerland among two groups of women, and has not formulated a clear difference between satisfaction in classical stay and early return. It didn't find differences between women's satisfaction for care or score of postnatal depression. The questions have aimed, among others, the satisfaction connected to the received help and care, the availability and personnel competence which provide care, capacity to care baby and discordance in discourse of carers. In this study it was noticed a difference between the two groups on satisfaction connected with care provided in breastfeeding after 1 and 4 weeks, being in advantage of groups of "early discharge" (on the other hand, period of breastfeeding was similar in the two groups: 127 days in mean for early returns and 121 days for the others)[24].

Others previous studies, prior to 1997, also underlined the limits of interpretation of literature looking women's satisfaction, voluntary participation vis à vis of early discharge constituting an important bias of selection, according to the ANAES.

As stated in ICONES report, in Canada, telephonic contacts and the visits at domicile are made by the community health services, and there are different early discharge programmes in different provinces. In Netherlands, in case of uncomplicated delivery, the women can leave maternities after 8 hours and are followed up by a midwife 8 hours in a day, on a period of 8 days. In England, a midwife makes a daily visit on a period of 10 days after delivery followed by an early discharge. In Sweden, the early discharge is also linked by the

passage of a midwife at patients domicile, a daily telephonic contact and a paediatric visit in the 5/7 day. [24]

Regarding Romania and Bulgaria, the situation is very different. In the both countries the early discharge programmes do not exist in the maternity field. After discharge from maternities home monitoring is assured by the family doctors and their nurses. This is an obligation for them stipulated in the Health Assurance Act, and they get paid for by the Health Insurance Fund.

Coming back to the economic analysis of the early returns in France and in other countries, the majority of studies (a little bit studies have been explored) underline the avoided costs by an early return in comparison with a traditional length of stay [30]. The study carried out at Louis Mourier Maternity Hospital, called to caution on the potential economy underlining that in this analysis must be integrated the costs generated by the eventual readmission of one newborn very early discharged or in the conditions of the insufficient following up.[31]

Regarding this additional costs, ICONES analysis is based on the comparison of direct costs for the first five days of stay in hospital. It is not evident if in this period, readmission costs are more important than cost of extension of stay in maternity connected to the same cause. Conversely, the number of day gained is made only on the dossiers which provide information on this item and cut a little the gain estimated [24].

Again we want to stress that the cost perspective is important and needs to be analysed, but in terms of cost-effectiveness approach, both costs and benefits are important.

## 4. CONCLUSIONS AND RECOMMENDATIONS

As a result of our study in the Sagesse clinic, on Early Flexible Discharge project we rested with some main conclusions.

The results of this program are rather positive and are justified by the number of early discharges which has increased from year to year.

The monitoring scheme within this project is easy and flexible clearly based on the free choice of women. In order to be assured of the success, the EFD project has involved many professionals, both from the clinic and from the ambulatory sector. The established protocols and procedures are well accepted by the professionals, this has given more chance for the improvement of the project. Nevertheless, we have noted that the liberal professionals were less involved than those from the Sagesse clinic.

The satisfaction of the both sides in that project (patients and professionals) is higher than in the normal discharge. If we consider the patient's satisfaction as a proxy of a quality of care, we can conclude that the utility is also higher.

Taking into account the benefits for the clinic, we can notice that behind that kind of discharge, La Sagesse maternity clinic gained a better reputation between the women and in the same time increase its capacity in terms of free beds, and thus in terms of maternity activity.

Regarding the economic aspects, we have to emphasise that given the available data from the ICONES evaluation, it is not so easy to conclude whether the project is cost effective or not, due to the fact, as explained before, that on the one hand, some of the costs could have been added, and on the other hand, the utility has not been assessed per se in the evaluation. We would recommend this approach for further studies.

Having in our mind some weaknesses identified throughout our study, we want also proposed some other recommendations, in order to improve the organisation and functioning of the early flexible discharge programme:

1. A better diffusion of information among patients, both antenatal and postnatal to gain women trust and their consent. This thing is important because it is known that a clear consent increases the satisfaction. The information can be transmitted in time of the

inscription to clinic, in the fourth month of pregnancy or with the occasion the information reunion (antenatal) and by open and complete discussions with parents/ a poster put in the rooms (postnatal).

2. A better information have to be addressed to liberal practitioners ( especially to general practitioners and midwives) by reunions of information and courier, in order to attract them and enlarge the work in network . The attracting them can be made also by finding of “incentives”.
3. Involving the paediatricians from the clinic in the home visits;
4. Improving activities during the weekends and the legal holidays by increasing the number of professionals in these periods or proposing a “package of benefits” for them;
5. Articulating with the perinatal networks in order to improve home visits.

In addition, and due to the lack of liberal professional involvement, we were wondering if the development of such a home-based practise could not have greater chance, if this would be initiated by professionals working out of the hospital. Childbirth is not per se a medical activity, thus the some alternative, such as Childbirth home should be an opportunity to develop in coordination with maternity home care, connected with hospital network.

As a consequence of this study, we learnt that in order to organise this kind of discharge is necessary to have a frame assured, the availability of the persons involved and a good financing. Therefore, analysing the possibility of implementing this particular model in our countries we can say that in this moment it is hard to adapt it at our conditions. Firstly, our health system has to develop the home care network in this field and after we can speak about early discharge.

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## 6. List of Appendices

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### ANNEX 1

#### INTERVIEWS GUIDELINES

##### I. General information

1. What is early flexible discharge? Which were the reasons for its development?
2. Who benefit from it? What are the main selection criteria? How know them about it?
3. Who finance it?
4. What can you say about the satisfaction of patients? But about professionals involved satisfaction?

##### II. Project organisation

5. Which are professionals involved? Which is each of them role?
6. Which are steps and procedures followed up by a woman registered within project?
7. Which are most frequently obstacles/problems? Justify their causes.
8. What do you think should be done in order to improve the coordinating between activities and professionals?

##### III. Home following/visits

9. How are home visits organised?
10. Who are the persons involved in this phase of the project?
11. How long is this monitoring and what are the factors influence it?
12. Specify negative and positive aspects connected to home monitoring. What do you thing that should be done to improve it?

## ANNEX 2

### The monthly number of early flexible discharged in the 2005 – 2006 period in the La Sagess clinic

2004-2005		2005-2006	
September	18	October	44
October	20	November	40
November	12	December	55
December	24	January	45
January	32	February	40
February	31	March	46
March	36	April	54
April	44	May	54
May	36	June	44
June	35	July	37
July	42	August	40
August	44	September	47
September	37		
<b>TOTAL</b>	<b>411</b>		<b>546</b>

Sources: ICONES reports: Evaluation du retour moduable à la clinique de la Sagesse après un an de fonctionnement, decembre 2005 and Evaluation du retour moduable à la clinique de la Sagesse après deux annes de fonctionnement decembre 2006

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<p>2007 EUOPHAMILI Rennes - France</p>		
<p><b>Analysis of the Early Flexible Discharge Programme and its outcomes at the Sagesse maternity – Rennes in a European perspective</b></p>		
<p><b>Abstract :</b></p> <p>In French maternities, as in many European countries, there is a special attention for the improving maternity care, in order to assure a good health status for both the mother and her child. In the same time, there is tendency to propose an early discharge, if both the mother and child's status and the environment allow it, in order to decrease the length of hospital stay.</p> <p>In this context our study analyzes in a European perspective, the personalized early discharge project implemented at the Sagesse clinic from Rennes – France.</p> <p>The objectives of this study were to see how is organized this kind of early discharge, to identify negative and positive points in its functioning and to analyze the satisfaction of the patients and the professionals involved.</p> <p>To reach our aim we used as methodology interviews with key persons involved in the project and also literature review.</p> <p>As results obtained we found that the monitoring scheme in this personalized discharge is easy and flexible, clearly based on free choice of women; the patient's and professional's satisfaction is high, whilst the economic benefits obtained are not important.</p>		
<p><b>Key words :</b></p> <p>Key words: early discharge, flexible, satisfaction, maternity, european</p>		
<p><i>The opinions expressed in this report are not necessarily those of the schools that are members of the AESCULAPIUS network: these opinions must be considered to be those of their authors only.</i></p>		