PRELIMINARY DRAFT REPORT OF THE IBC ON MODERN PARENTHOOD

Within the framework of its work programme for 2018-2019, the International Bioethics Committee of UNESCO (IBC) decided to address the topic of modern parenthood, reflecting on the interactions between societal and technological developments that are leading to new concepts and forms of parenthood, including the impact on cross-border practices and reproductive justice.

At the 24th (Ordinary) Session of the IBC in September 2017, the Committee established a Working Group to develop an initial reflection on this topic. The IBC Working Group, using email exchanges, started preparing a text on this reflection between October 2017 and April 2018. It also met in Beirut in April 2018 to refine the structure and content of its text. Based on the work completed so far, this document contains the preliminary draft report prepared by the IBC Working Group.

As it stands, this preliminary draft report does not necessarily represent the final opinion of the IBC and it is subject to further discussion within the Committee in 2018 and 2019. This document also does not pretend to be exhaustive and does not necessarily represent the views of the Member States of UNESCO.
# PRELIMINARY DRAFT REPORT OF THE IBC ON MODERN PARENTHOOD

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I. INTRODUCTION

1. In 2010, the English physiologist Robert Edwards was awarded with the Nobel Prize in Medicine. According to the official press release of the Organization, the Award was a recognition for the development of human in vitro fertilization (hereinafter, IVF) therapy. In 1978, Louise Brown was the first baby in the world born as a result of the technique of IVF used by doctors Edwards and Steptoe. The aforementioned press release emphasizes the contribution of IVF to end the infertility of so many couples in the world. At this point it was not possible to fully foresee how this technique would revolutionise the possibilities of human reproduction.

2. The assisted reproductive technology (hereinafter, ART) in general has evolved at great speed, both from the technological point of view and by the uses to which it has been destined. The use of ART by single women, lesbian couples or heterosexual couples without having to prove infertility made it clear soon that these techniques not only served to overcome the infertility problems of couples, but also to free human beings from some of the biological aspects of human reproduction. Some rushed to talk about a progressive emancipation of the human being with respect to biology, which until then had conditioned human procreation to the sexual encounter between a man and a woman. Others understood that these techniques could go so far as to attempt against the traditionally main framework for procreation: one in which new human lives are born and left to the charge of the man and woman who have engendered them. A part of society has for the moment remained outside of this debate, accepting to a greater or lesser extent the possibilities offered by these techniques. There is also a very important economic interests that may not appreciate focus on possible ethical issues/obstacles.

3. Throughout history, the human being has maintained, as one of the most fundamental principles of social organization, the principle of Roman law “mater semper certa est”. This principle is not limited to verifying a factual reality – that every human being has had a known progenitor, unless he has insisted on concealing his pregnancy and childbirth – but to sanction a prescriptive criterion: that the child’s progenitor will be his legal mother. The law decided to maintain continuity between genetic and physiological and legal maternity. The principle is based on a biological basis but goes much further, presuming that the progenitor of a baby is who, as a mother, can best take care of him. It is true that there have been proposals to order procreation and relations of filiation in such a way that gestation and motherhood are separated. Many centuries ago, Plato proposed raising the children of the guardians of the Polis by other persons than their parents (The Republic). These proposals did not get under way and, when they did, they had an ephemeral duration. The criterion that maternity corresponded to the one that had given birth remained constant. However, ART seem to have changed the paradigm about maternity and parenthood in general.

4. With the emergence of ART, which allowed the separation of genetic and physiological maternity, this criterion was maintained. The possibility of oocyte donation and surrogacy raised new issues: why could a woman be a mother, if she carried the fetus, even if she did not provide the gamete and, on the other hand, could not be if she did not carry it? Why could a woman alone be a parent through the ART and not a man (with or without a homosexual partner)? In these cases, the link between pregnancy and motherhood, maintained constantly throughout history, appeared as an obstacle that had to be dissolved in order to achieve procreative freedom and equality. The final solutions came to transform completely the ordering of human procreation.

5. Modern medical innovations make the definition of legal parenthood even more difficult today or, at least, obliging us to change the paradigm that we have kept for many
centuries. These scientific innovations were described as the “Wild West of Medicine” in the sense that they are constantly progressing without reflecting about their impact in the social organization and family structures as a main element of that organization. In spite of the fact that these treatments enabled infertile couples to reproduce, some of the possibilities that have been opened could cause a radical split in the traditional family structure and could also alter the basic social assumptions with regard to the institution of family and parenthood. We need a deeper understanding of parenthood and the moral dimensions of the parent-child relationship in this novel context. A consideration of the ethics of parenthood leads into several issues, such as the nature and justification of moral rights, the source of moral obligations, the value of autonomy and the moral obligations and tensions present in interpersonal relationships (Austin, 2016, p.12).

6. It is proposed to introduce a new order of relations of filiation in which the biological basis of filiation is replaced by the procreative will of the individual. This alternative way of understanding procreation and filiation brings with it three major effects. First, procreation is not only a natural event of maximum relevance (because it involves the appearance of a new human being), which society decides to confront by attributing parental responsibility to their parents. Procreation is also conceived as a desire or, even, a right of the individual, which can be satisfied through the new techniques. Second, the biological conditions required to procreate can be overcome. Third, gestation need not to be the first stage of the mother-child relationship, in which fundamental bonds are established that will last throughout life and offer the most suitable basis for the construction of the mother-child bond, it could also be a service offered to other persons. In this context, the break between gestation and maternity seems to be less important than the satisfaction of having a child by someone who cannot carry the child.

7. This huge development of ART in the last decades constitutes one of the main successes of medical science. This development has transformed into a reality the wills of many couples of being a parent or having a child without genetic and hereditary diseases, which is especially relevant in our contemporary societies where there are increasing problems related to fertility and where the incorporation of women to the work market has ostensibly delayed the age of motherhood. ART is the new opportunity of being a parent in this very new and unprecedented context.

8. The developments described pose new bioethical issues because of their disruptive nature in the way in which human procreation, and the consequent relationships of motherhood and filiation, have been understood and regulated up to the present. For the first time in history the possibility of dissociating the gestation of motherhood arises. This could lead to a distinction between the legal and the biological parenthood. In some sense, the phenomenon is not completely new if we think in adoption, but ART arises new dilemmas and a new way to understand parenthood. For instance, in the adoption, there is no prior agreement between the woman who conceives a child and the people who will assume parenthood, which, nevertheless, is an indispensable element in every surrogate pregnancy.

9. The end of ART is plausible, considering the problems of birth rate that we are facing in many of our societies, mainly, in the developed countries. But the end has to be evaluated considering the means to get it and the groups of people which can be affected by it, specially, children as a vulnerable group.

10. Although ART in most societies is recognised as an acceptable medical procedure that could help childless couples, it still poses two enormous challenges. The first one forces us to ask ourselves if procreation requires the respect of certain minimum conditions to be in accordance with the good of the parties directly involved. Two contradictory answers are often given to this question. One considers that maintaining the link between gestation and filiation is important for the parties affected in procreation, for the child and for the correct social organization. The other position holds that gestation and filiation need not be linked because what should prevail, in any case, is the individual desire to have a child.
11. These new dilemmas and conflicts could be solved ethically and legally at the national arena but many of the services involving ART are offered globally. Many people will travel to another country if the procedure they need to become parents is not allowed in their country of residence, thereby taking advantage of the lack of a common opinion and regulation of the different ART possibilities. So, a global guidance about the consequences of these developments is more important than ever. For instance, surrogacy is one of the paradigmatic examples of this new reproductive tourism where the States are not able to solve the legal consequences of the phenomenon at the local framework.

12. The ethical evaluation of a human action usually needs to know with precision about the content and the effects of that action, but it doesn’t mean that this reflection cannot be done. There are different questions related to ART and the new technologies related to procreation and many of them demand a very precise definition and explanations of the way of acting and its consequences as was done in the Report of the IBC on Updating Its Reflection on the Human Genome and Human Rights (UNESCO, 2015). Also, in the Report of the IBC on the Principle of Respect for Human Vulnerability and Personal Integrity (UNESCO, 2013), it was stated that “there are individuals and groups that are especially prone to violation of personal integrity or disrespect for autonomy due to exploitation, deception, coercion and disregard through the application and advancing of scientific knowledge, medical practice and associated technologies” and among them children.

13. Apart from that recent Reports of the IBC, UNESCO has adopted three bioethics Declarations. The Universal Declaration on the Human Genome and Human Rights (UDHGHR), which was adopted by the UNESCO General Conference on 11 November 1997 and endorsed by the United Nations General Assembly in 1998; the International Declaration on Human Genetic Data (IDHGD), which was adopted by the UNESCO General Conference on 16 October 2003; and the Universal Declaration on Bioethics and Human Rights (UDBHR), which was adopted by the UNESCO General Conference on 19 October 2005. These documents form the basis of the IBC’s views regarding the rights of individuals and societies as well as the responsibilities of States and researchers related to genetic data and human rights.

14. Article 26 of the IDHGD states that: “UNESCO shall take appropriate action to follow up this Declaration so as to foster progress of the life sciences and their applications through technologies” (UNESCO, 2003a), while Article 24 of the UDHGHR proclaims that: “[t]he International Bioethics Committee of UNESCO should contribute to the dissemination of the principles set out in this Declaration and to the further examination of issues raised by their applications and by the evolution of the technologies in question” (UNESCO, 1997).

15. In accordance with these two articles and in light of rapid advancements in human genetic research in the last decade, the IBC believes that it is timely to update its reflection on the ethical issues arising from ART and these new technologies from the scope of the impact in the concept of parenthood.

16. Building on these preliminary observations, the Report will focus on selected areas considered of major interest. For every area of reflection, it will provide a brief description of the techniques and of their applications, of the ethical challenges associated with it, and of some practical recommendations, bearing in mind the principles enshrined in the existing Declarations. The selected fields are not only those techniques that have been already developed, but also new possibilities that we will see soon, such as artificial uterus, for instance. All our reflections and considerations will be made considering the impact of new technologies in the area for human reproduction for the future of parenthood and the values and interests surrounding it.

17. The assisted human reproduction affects the whole society and supposes a privileged observatory for the study of the interactions between science and society. There are many implications derived from these techniques, economic, cultural, scientific, ideological, ethical or religious that enter the very roots of the social fabric. As for the cultural
ones, they highlight the understanding that each society has about procreation, the family institution, marital relations, parental relationships, body and life.

II. TECHNOLOGICAL AND SCIENTIFIC DEVELOPMENTS

II.1. IVF – In vitro fertilization

18. In vitro fertilization (IVF) is here used as a common terminology for medically assisted procreation techniques where human embryos are fertilised in the laboratory followed by embryo transfer into the maternal uterus. Most procedures require hormonal stimulation to retrieve the oocytes, and all require that sperm is obtained from the man by ejaculation, or in some cases, by aspiration or surgical procedures. In each cycle, on average, 8-12 oocytes are retrieved and fertilised. The pregnancy rate per embryo transfer is 30-35 % (ESHRE, 2018). Rates are higher in women under the age of 35.

19. IVF is now a widespread technique, and the number of children born after IVF is constantly increasing. Worldwide, about 2.4 million ART cycles are estimated every year, resulting in the birth of about 500,000 babies (ESHRE, 2018). It is now estimated that more than 7 million babies have been born worldwide since the first IVF baby was born in 1978. IVF covers between 2% and 4 % of the annual births in rich countries. About 70% of couples who have attempted IVF become parents.

20. The most common complication of ART is multiple pregnancy. Maternal morbidity and mortality in multiple pregnancies are significantly increased when compared to singleton pregnancies. Twins are associated with higher rates of perinatal complications, and the risk of neurological problems in new-borns is also higher than in singletons (ESHRE, 2008). To increase the success rate, two or more embryos may be transferred, according to clinical parameters and after discussion with the prospective parents. This could increase the chance of having a baby but at the same time, increase the risk of multiple pregnancies.

21. Multiple births after ART was previously very high. There are large differences between countries regarding the number of embryos transferred and the rate of multiple births. Single embryo transfer (SET) in selected groups of patients is advocated since it is the only effective means of lowering the rate of twin pregnancies (ESHRE, 2008). The combination of SET with a good quality freezing programme and the possibility for subsequent replacement of a single frozen-thawed embryo achieves a live birth rate comparable to double embryo transfer (ESHRE, 2008). In Europe, the multiple delivery rate has decreased from an average around 27 % in 2000 to around 18 % in 2014; in some countries as low as 5-6 % (EIM et al., 2017).

22. The use of frozen-thawed embryos allows “delayed birth” of what could be considered as biologically dizygotic twins/tri-zygotic triplets – because the oocytes are fertilised at the same time but are born as a result of separate gestational processes, thus causing a disruption in time in the birth of twins or triplets.

23. Even though it is widely accepted, IVF nevertheless raises ethical challenges, especially because of the technological possibilities that derive from it and their consequences; such as gamete donation, surrogacy, pluri-parenthood and human embryo research. In one way or another, the practice of IVF raises the question of human nature and its normativity. The exact meaning of human dignity is questioned by this technique. It puts into perspective, on one side, the best interest of the child and, on the other, the parents’ reproductive freedom, which can sometimes be in conflict.

II.2. Gamete and embryo donation

24. Gamete and embryo donation may be the only solution to remedy the lack of functional female and/or male gametes, enabling the woman/couple to have a child that is linked to them through the gestational process. Gamete or embryo donation may also be
applied to avoid the transmission of genetic conditions to the offspring (ESHRE Task Force on Ethics and Law, 2002). Gamete and embryo donation may be used by heterosexual couples, lesbian couples, single women and homosexual couples or single males. The two latter also require surrogacy (see Section II.10).

25. Gamete and embryo donation may take place in the following forms:

   a. *The oocyte from the social/legal mother is fertilised by sperm from a donor.* There will be a genetic and gestational link between the child and the social/legal mother, but no genetic link to the social/legal father (if there is one). There will be a genetic link to the sperm donor.

   b. *The oocyte comes from a donor and is fertilised with the sperm of the father.* The gestational and social/legal mother is the same person. There will be a genetic link to the social/legal father. There is also a genetic link to the oocyte donor.

   c. *Both oocyte and sperm come from donors.* In this situation, as in the previous one, the gestational and social/legal mother of the child is the same person but there is no genetic link between the child and the social/legal mother or father (if there is one). The child will be genetically related to the two donors.

   d. *Embryo donation.* In such cases, as in the previous one, there is no genetic link between the child and its social/legal parent(s). The donors will be a couple, who probably have children that are genetically and biological linked to them. Those children will be genetic siblings to the children conceived by embryo donation. Both donors and recipients have used an adoption metaphor to describe the long-term implications of having a genetic child separated from and raised by another family, but the term is disputed (Milbänk et al., 2017).

26. Anecdotal examples of sperm donation go way back in time as a mean of producing an heir to childless couples, either by sexual intercourse between the donor and the mother to be, or by insemination. The earliest recorded insemination of donor sperm in a medical institution is claimed to have taken place in USA in 1884 (Kramer, 2016). In Europe, sperm donation was offered in medical clinics from the 1970s. Oocyte and embryo donation was not possible until 1978.

27. Policies in countries that allow gamete donation tend to move away from the previous principle of full anonymity between the donor and the child, and give the child a right to know the identity of the donor. Sweden changed the legislation on this point already in 1985, as the first country in the world. Many countries have decided to follow the same practice. The main argument is the importance of recognising a child’s right to know its origin (UN, 1989, Article 7).

II.3. Oocyte freezing

28. The development of ultra-rapid freezing techniques, so called “vitrification” has opened the possibility for storing unfertilized oocytes for later use. The survival rate for oocytes stored by vitrification is better than when using previous slow-freezing techniques, and the fertilisation rate of thawed, vitrified oocytes seems to be similar to that of “fresh” oocytes.

29. Vitrification and oocytes storage may be an important advance in preserving female fertility in relation to medical interventions or disease that may cause infertility. Oocyte storage for medical reasons thus seems uncontroversial when offered to women who have reached the age of maturity and who can consent to the procedure. The situation may be different when oocyte retrieval and storage is offered to young girls undergoing medical treatment that could cause infertility, but who cannot give a valid consent. Under such circumstances, there may be diverging opinions on what is in the best interest of the child.
30. Oocyte freezing for social reasons is debated. On the one hand, it allows a woman who has not yet found a partner to preserve their oocytes while the “quality” of the gametes is still good. This could represent a better opportunity for having their own genetic children at a later point in life. Storage of unfertilised oocytes also opens the possibility for delaying parenthood or post-mortem female reproduction (see Section II.9). Some aspects of delaying parenthood may be questionable from a societal, medical and ethical point of view; for instance, post-menopausal parenthood (see below). Possible undue coercion towards delaying parenthood could challenge women’s autonomy and reproductive freedom.

31. Previously, oocyte donation was performed by using freshly aspired oocytes, thus, the woman undergoing treatment with donated oocyte had to be present at the same clinic as the donor, and their treatments had to be coordinated. Oocyte freezing opens the possibility for establishing international egg banks for worldwide distribution of donated gametes. This could increase the access to donated oocytes for several reasons. Oocytes donation may be culturally more acceptable in some regions of the world. The amount of compensation has been shown to have an impact on the access of donors, and could constitute a substantial source of income in some countries. This raises complex ethical issues related to possible exploitation of donors and commercialisation of gametes.

32. There are many examples describing situations where the use of donated oocyte or embryo donations have enabled postmenopausal women to reproduce and give birth, even at quite advanced age. Vitrification of oocytes (see Section II.3) and subsequent use IVF now opens the possibility for postmenopausal women to have their own genetic child.

33. Pregnancies in postmenopausal women are not without risk. Studies have shown that pregnancies in women over 50 present increased risk medical complications such as preeclampsia, foetal distress, poor foetal growth and foetal mortality.

34. Postmenopausal parenthood may affect the welfare of the child because life-expectancy of the mother will necessarily decrease with advancing age. There are also cultural and societal challenges related to postmenopausal women becoming parents: It creates a kind of “generation displacement”, i.e. women at more advanced age have young children instead of grandchildren.

II.4. Children with DNA from three individuals – mitochondrial donation

35. Mitochondria are tiny structures inside our cells which provide the energy for cells to function. They are present in every cell of the body, except red blood cells. Mitochondria are responsible for creating more than 90% of the energy needed by the body to sustain life and support organ function. When they fail, less and less energy is generated within the cell. Cell injury and even cell death follow. If this process is repeated throughout the body, whole organ systems begin to fail (United Mitochondrial Disease Foundation, n.d.).

36. Inherited mitochondrial disorders are progressive and often cause severely debilitating and disabling health problems. Mitochondrial disease may be difficult to diagnose because they affect each individual differently. There is no cure for these conditions, and they can result in the death of babies, children and young people (Nuffield Council of Bioethics, 2012). Mitochondrial disorders can be caused by mutations in the genes in the nucleus affecting mitochondrial function, or by mutations in genes within the mitochondria themselves.

37. Mitochondria are always transmitted from the mother to the child. Thus, mitochondrial diseases caused by mutations in mitochondrial DNA are transmitted by maternal inheritance. Those caused by mutations in nuclear DNA may follow an autosomal

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1 If further reflection on the compensation issue is necessary, the Swedish example could be used as a reference – to be discussed by the IBC during the upcoming plenary session.
dominant, autosomal recessive or X-linked pattern of inheritance (NIH National Center for Advancing Translational Sciences, n.d.).

38. Mitochondrial donation by pronuclear transfer (PNT) or maternal spindle transfer (MST) seem to have the potential to prevent transmission of maternally inherited mitochondrial disorders caused by mutations in the genes of mitochondria. Both require IVF. PNT involves using very early (one day old) embryos. MST uses unfertilised oocytes. Both techniques will result in a baby with genetic material from three individuals: nuclear genetic material from the two parents and healthy mitochondria from a donated oocyte. The donated mitochondria could come from either an unrelated or a related donor. A maternal relative’s healthy donated mitochondria would be identical to any healthy mitochondria the intended mother had, and thereby allow the mother to pass on “her family’s” mitochondrial DNA to her child (Nuffield Council of Bioethics, 2012).

39. It has been claimed that the world’s first baby with donated mitochondria, and thus, genetic material from three individuals was born 6th of April 2015 in Mexico (Sample, 2016). Mitochondrial transfer was legalised in the UK in 2015 but so far, no other country has introduced laws to permit the technique. In March 2017, The Human Fertility and Embryology Agency in the UK approved the first application for the use of mitochondrial donation to treat patients but so far, no children have been born in UK after such treatments (HFEA, 2017).

40. Mitochondrial donation is not a treatment for infertility, although it requires the use of IVF procedures. It is a way to avoid transmission of mitochondrial disorders and in this way, the technique should rather be compared to preimplantation genetic diagnosis (PGD).

II.5. Uterus transplantation

41. Infertility due to an absence of the uterus or non-functional uterus, i.e., an inability of the uterus to carry a pregnancy, has eluded reproductive medicine for a long period of time. Uterine factor infertility is estimated to affect thousands of women worldwide. It can be caused by congenital Müllerian malformations, such as in the Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome, or more commonly acquired as in the cases of women suffering from Asherman’s syndrome, pregnancy interfering myomas, or hysterectomies (Johanneson and Järvell, 2016). Uterus transplantation is the first available treatment for absolute uterine infertility.

42. As of today, a total of eleven cases of human uterus transplantations have been reported worldwide, conducted in three different countries and cultural settings (Johanneson and Jarvell, 2016). The first known uterus transplantation using a live donor took place in Saudi Arabia in 2000 (Akouri et al., 2017; Ström, 2017). The recipient was a 26-year-old woman who had previously undergone hysterectomy. The transplanted uterus had to be removed 99 days post-surgery. The second known example of human uterus transplantation was performed in Turkey in 2011. A 21-year old woman was transplanted with a uterus from a 22-year-old donor. Five years after transplantation, the uterus was still in place. Multiple embryo transfers have been performed without resulting in the birth of a child. The reason for the pregnancy failures may be related to uterine-specific factors rather than embryo-specific factors. The transplanted uterus had not carried a pregnancy before the transplantation (Akouri et al., 2017).

43. Sahlgrenska University Hospital performed nine live-donor uterus transplantations in early 2013 (Brännström et al., 2014), during a clinical trial with strict inclusion criteria and thorough evaluation of both recipients and donors. Evaluation included medical as well as psychological factors (Sahlgrenska Academy, 2014a). Eight of the recipients had MRKH and one had undergone radical hysterectomy due to cervical cancer. The recipients went through 2-3 IVF cycles prior to the transplantation. The donors were mothers and female relatives, or a close friend, of whom five were post-menopausal. Seven of the transplanted
uteri showed spontaneous and regular menstruation beginning 1-2 months after the transplantation.

44. The first live birth after to a woman who had undergone uterus transplantation was announced in September 2014 (Sahlgrenska Academy, 2014b; Brännström et al., 2015); a baby boy with a normal birthweight for gestational age of 31 full weeks and with normal APGAR scores. By September 18th, 2017, Sahlgrenska University Hospital has reported a total of 8 children born to women with a transplanted uterus (Ström, 2017).

45. Uterus donation is not restricted to either live or deceased donors. In the reported cases, ten of the transplanted uteri were from live donors and one was from a deceased donor. Both alternatives may give rise to ethical challenges.

46. Uterus transplantation could be considered an alternative to surrogacy procedures. It maintains a gestational link between the social/legal mother and the child, but possibly introduces an additional gestational link: that between the child and the uterus donor.

47. Although most of the reported cases of uterus transplantation have shown successful outcome, this procedure is still only proof of concept for uterus transplantation as a treatment for uterine factor infertility. Before introducing uterus transplantation in a wider general setting, it will be necessary to evaluate major obstetrical risks, including miscarriage, pre-eclampsia, preterm birth, and fetal growth restriction. In transplantation there is always a risk of rejection of the transplanted organ, and surveillance of organ functionality will be crucial.

II.6. Artificial uterus

48. Attempts to make an artificial uterus have been described as early as 1959 (Taylor et al., 1959). In 2017 came a scientific report that “proved the principle” in animals: it showed how premature lambs could be kept alive for up to four weeks in a so-called artificial uterus or “bio-bag”. With appropriate support, lambs on this system demonstrated normal bodily growth, lung maturation and brain growth and myelination (Partridge et al., 2017). If the technology at some point will be safe to use in humans; the targeted population would most likely be 23-25 weeks extremely premature infants. The high morbidity and mortality of this group might justify the application of this technology if clinical trials could show dramatically improvements of their outcomes.

49. Although the technique may seem promising, there are numerous challenges: both medical and ethical. Environments that imitate the inside of the uterus continue to deliver oxygen through the umbilical cord, or directly into the arteries. This may be risky to establish in an artificial uterus because umbilical cords shrink when exposed to oxygen or perturbation. Artificial uterus can easily become contaminated with infections, and the foetal heart is weak and sometimes cannot handle artificial pumping of blood.

50. Further prospects of artificial uterus may include the possibility of bringing children to life through development of foetuses or embryos of very early gestation outside the natural uterus. This would represent a disconnecting of gestational development of the child and the natural biological process of pregnancy. Obviously, this raises fundamental questions related to biological processes and unforeseen risk, and challenges human dignity and other human rights.

II.7. Artificial gametes

51. Scientist are exploring several pathways to create gametes in vitro. A systematic review from 2015 has identified 8 biological plausible routes towards the production of artificial sperm in males and 9 biological plausible routes towards the production of artificial

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oocytes in women. In addition, plausible biological routes that could lead to the development of sperm in females and oocytes in males have been identified. Clinical application could be the expected outcome of this research, but the state of knowledge on functionality and safety of the key methods is currently limited and is a major challenge.

52. Possible future use of artificial gametes could increase the availability of gametes for clinics or gamete banks. It could also represent a possibility for infertile persons who now use donated gametes to have a child who is genetically related to them. Some have even suggested that artificial gametes will end infertility, thereby representing a relief to the suffering caused by involuntary childlessness.

53. Artificial gametes may on the other hand introduce serious risk of harm. Children conceived with artificial gametes might suffer from serious genetic anomalies. This is a reason to be cautious in using such techniques. Furthermore, artificial gametes may allow fulfilment of a person's reproductive aspirations, both within and without this traditional family concept, thus posing a variety of threats to the integrity of the nuclear family. The possible derivation of oocytes from males and sperm from females may raise concern over the pressure that adds to the already strained concepts of mother, father and family. Furthermore, artificial gametes pose a fundamental challenge to many assumptions about the limits of human reproduction. It will also influence legislation and regulation, among which the possibility of gamete theft and the prospect of unwitting parenthood may be particularly difficult.

54. The possibilities that these techniques may represent raise issues related to how infertility, gametes and parenthood are understood as well as a number of ethical concerns, including the commodification of human reproductive material; the question of whether further research is warranted; genetic or psychological harm to the offspring; and gender and parenthood issues.

II.8. Post mortem reproduction

55. Post-mortem reproduction in this report is used to describe a procedure where a deceased person or persons give rise to a child. This could be possible in the following ways:

   a. posthumous sperm procurement by harvesting gametes from a recently deceased man for future use by the remaining female spouse;
   b. using cryopreserved oocytes, sperm or embryo from a deceased husband or wife so the remaining spouse could have a child by his or her deceased partner;
   c. using donated cryopreserved oocyte, sperm or embryo after the death of the donor in a gamete/embryo donation procedure (as described in Section II.2) or combined with surrogacy;
   d. if a pregnancy is already established and the pregnant woman is dying, relapse into coma or dies, it might be possible to maintain circulation and ventilation to give her foetus a chance to survive by increasing its maturity (Mason, 1998).

56. The potential of post-mortem reproduction using cryopreserved sperm has been recognised for decades. In 1962, an article published in American Bar Association Journal introduced a new character to the law of future interests in the person of the “fertile descendent”, since sperm could be stored and used for decades after the death of the donor (Kindregan and McBrien, 2006).

57. Clinical trials have shown that the use of cryopreserved oocytes will have similar pregnancy rates as fresh oocytes when used in an oocyte donation program (Cobo et al., 2010). The improved techniques for cryopreservation have opened the possibility for using donated sperm, donated unfertilised oocytes as well as donated embryos after the death of the donor.
58. Post-mortem use of sperm, oocytes or embryos raises complex ethical and legal dilemmas related to autonomy, informed consent, privacy, inheritance as well as child welfare, children's right, issues related to the dignity of the diseased person, including respect for their wishes (Bahadur, 2002; Batzer et al., 2003). It may be ethically challenging to retrieve sperm or oocytes from a dying person who is in a coma or use oocytes or sperms from a couple after the death of one person. Medical interventions of this kind raise serious moral issues for which it is difficult to find answers.

II.9. Surrogacy

59. According to the Oxford dictionary, a surrogate (mother) is a woman who bears a child on behalf of another woman, either by having her own oocyte fertilised by the other woman’s partner, or from the implantation in her uterus of a fertilised oocyte from the other woman. Surrogacy is not restricted to these situations since modern parenthood encompass families beyond the traditional two-parent, male-female constellations.

60. A surrogacy procedure involves at least two parts; the intendent parent/parents who initiate the procedure with the intention of being the child’s social and legal parent(s) and the woman who carries the child – the surrogate. The surrogate goes through pregnancy and gives birth with the intention of giving the child to the intended parent/parents.

61. Most surrogacy procedures that we know of today require the use of ART and were not possible before 1978. These procedures are often referred to as “gestational surrogacy” because there is no genetic link between the surrogate (mother) and the child. They make take different forms and give rise to a variety of “parenthoods”:

a. The oocyte comes from the intended mother and is fertilised by the sperm of her partner. There will be a genetic link between the child and both intended parents. The surrogate will be the gestational “mother” of the child. The genetic and social/legal mother of the child is the same person; and the genetic father will also be the social/legal father.

b. The oocyte comes from a donor and is fertilised with the sperm of the father (one father in the case of male-male couples). Also, in this situation, the surrogate will be the gestational “mother” of the child. The child will have a genetic link to one of its social/legal parents – a father, and a genetic link to the oocyte donor. The child has a genetic “mother”, a gestational “mother” (the surrogate), a genetic and social/legal father, and if the intended parents are a couple; there will also be a social/legal mother or a second social/legal father.

c. The oocyte comes from the intended mother and is fertilised by a donor. In this situation, the child has a gestational mother (the surrogate); a genetic and social/legal mother (the intended mother), a genetic “father” (the donor) and in the case the intended parents are a couple, also a social/legal father (the intended father).

d. Oocyte and sperm come from donors. In such cases, there is no genetic or biological link between the child and its social/legal parent(s). The child will have a gestational link to the surrogate and a genetic link to the two donors, thus three genetic/gestational “parents” and at least one social/legal parent. In case of embryo donation, the child may have genetic siblings in the donor family.

62. Before 1978, surrogacy could only take place in procedures where the surrogate used her own oocytes and got pregnant through insemination/self-insemination or sexual intercourse with the intended father. Today, such procedures are often referred to as “traditional surrogacy”. Anecdotal examples of traditional surrogacy go way back in time. Even today, there are stories of women offering traditional surrogacy, for instance in European countries.
63. The number of surrogacy procedures and children born after surrogacy seems to increase worldwide. People may have different medical and/or social reasons for using surrogacy as means of becoming parents. Until recently (see Section II.5), it was the only way to become a genetic mother for women who were born without uterus or who had to remove their uterus during medical treatment. Likewise, a woman who knows that her body will not be able to carry through a pregnancy, for instance because she has experienced numerous miscarriages after spontaneous pregnancies or IVF, could become a genetic mother if somebody else could carry her child. For single men or male-male couples, surrogacy is the only way to become genetic parent(s). There are also examples where single women, who could neither use their oocytes nor carry a child, have become parents through surrogacy.

II.10. Genetic diagnosis

64. Since the late 1960s prenatal diagnosis has been used to as a method for examining possible congenital abnormalities in the fetus. Prenatal diagnosis may put prospective parents in a difficult situation where they have to decide whether to give birth to a baby with a severe disease or anomaly or terminate the pregnancy.

65. Preimplantation genetic diagnosis (PGD) is a procedure by using genetic test to select embryos for the implantation into the uterus through IVF for couples with a high risk of having with a child a serious genetic disorder or a life-threatening genetic disease (WMA, 2009). In particular, PGD can be useful for couples who have disease high risk of having a child with a serious heritable disorder and want to avoid pregnancy termination In these cases, PGD is an alternative to PND.

66. PGD can be seen as a continuum of prenatal diagnosis, but it can provide a less distressful means for a couple with high chance of conceiving a child of genetic disease by preventing pregnancy of affected embryos than prenatal diagnosis. In 1990s, the scope of PGD has been widened, as the development of biotechnology has revealed more of the link between genes and diseases, including disease with reduced penetrance such as inheritable cancer. (Knoppers et al., 2006)

67. PGD enables parents to choose embryos for pregnancy. It has been used not only for avoiding genetic diseases, but for selecting a desired characteristic such as sex, or having characteristics to function donors for a sibling with a disease that can be cured by bone marrow transplantation (UNESCO, 2003b). With this technology, infertile couples using IVF not just seek a birth of a healthy baby, also a “helpful baby”.

68. Ethical concerns of PGD include moral status of embryos, the selection and destruction of human embryos, or possible discrimination of the disabled as PGD selects against people with genetic disorders (Duguet and Boyer-Beviere, 2017). Many ethical and legal debates on PGD have led wide variety of legal approaches among countries. Due to different ethical perspectives countries have different legal positions regarding the use of PGD including prohibition, regulation under the law, and permission. The use of PGD for non-medical indications such as sex selection has been debated because it may be ethically challenging (Frati et al., 2017).

69. Preimplantation genetic screening (PGS) examines chromosomes to rule out chromosomal abnormalities in patients with normal karyotypes. For advanced maternal age, it may be used to select embryos without numerical chromosome aberrations to possibly improve the chance of a successful pregnancy outcome in IVF. With advances in high throughput next-generation sequencing (NGS) technologies, the expanded carrier screening for genetic conditions has been suggested so that the embryo with the best genetic “profile” could be selected (Dungan, 2018). This is controversial. Due to the uncertainty regarding the interpretation of genetic findings including genetic mosaicism, informed consent and professional counselling for pre- and post- genetic test should be guaranteed (Mertes et al., 2018).
III. CONCEPTS OF PARENTHOOD

III.1. Parents, parenthood and procreation (progenitor)

70. Parenthood is a description of a relational condition towards a child, without referring to the number and to the sexual difference. The parenthood is considered a phenomenon, variable, flexible and modifiable. As a minimal definition, the notion of family refers to all forms of life that are based on the links between parents and children uniting generations and that are recognized by the society. From an historical and anthropological point of view, considering the variety of human societies, the so-called “traditional family” is a recent European sociological and cultural production where the parents are a man and a woman with or without a legal union. They are both the genetic parents (gamete donors), the gestational parents (the pregnant mother and her partner), and social parents (educators). We call ‘parenthood’ any form of educational support where the adult is responsible for the education of a child. Parenthood also means the social status of being parent. In this view, parenthood corresponds to the set of psychic and emotional adjustments that allow adults to become parents, that is to say to meet the needs of their children at three levels: the body (the nursing care), the emotional life, the cognitive life. The reference to “parenthood”, instead of “family”, is often use as a disembodied terminology, instead of motherhood and fatherhood (embodied in sexual difference), including homosexual couples (bi-parental of the same sex) or single individual (monoparental).

71. A parent is someone who has rights and duties/responsibilities towards a child. Parents usually have decision-making rights over some areas of their child’s life. Parents have duties and responsibilities to nourish, educate, and provide healthcare for their children, deciding for their best interest.

72. The multiple technics and intentions create the possibilities of various ways of parenthood including pluri-fatherhood (the genetic father is also the social father), pluri-motherhood (the genetic mother or the genetic mothers, being possibly duplicated with mitochondrial donation and the social mother, the one who commits the child as her own), mono-parenthood/single-motherhood in the case of the single woman who access heterologous assisted insemination, either wanting a child without a partner, or post-mortem the case of the widow who asks to be inseminated with the gamete of her dead husband, “prenatal adoption” in the case of parents willing to implant spared embryos (remained cryopreserved from artificial procreation), “late parenthood” after the natural fertility period.

73. Since the end of the 1950s, there has been strong social pressure in favour of the freedom of human procreation. The social demand on the one hand, and the medical and technical progress on the other hand, allowed a disjunction between sexuality and procreation with the emergence of contraceptive methods and the blow of new responsibilities. Then the emergence of ART in the 1960s (sperm donation) and 1970s (IVF) allowed a novel disjunction between natural procreation and medically assisted procreation.

74. WHO defines infertility as a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse (and there is no other reason, such as breastfeeding or postpartum amenorrhea). Infertility is a reduced or lack of ability to conceive and carry a child, whether it be for temporary or permanent reasons, whereas sterility is the inability to conceive a child. Of note ART allows infertile/sterile people to be parents. This sterility/infertility might be from medical origin or from social origin (couple of women, woman alone). ART might also be part of the use of a surrogate woman to allow heterosexual couples or couples of men to be parents.

75. The possibility to separate sexuality from procreation (contraception, in vitro fertilization), the donation of gametes, and the separation of procreation from gestation
(surrogate pregnancy or ectogenesis), contribute to proceduralize reproduction and fragment the “traditional” forms of parenthood, distinguishing the biological/genetic and the social/legal dimension. To be parent moved from chance to familial planning with new freedom and new duties.

76. The fragmentation due to the technological proceduralization of procreation is not really a multiplication of parents. A donor of gamete or mitochondria or uterus, is not a parent but a gamete giver or uterus provider; a surrogate woman is not a mother, but a person offering (oblative or paid) a gestational service (it may be better called "surrogate gestation"). In this sense the donor/giver/provider of gametes or gestation is not a parent, as, being genetically or biologically linked with the child, but having no intention of parenthood (with both no rights to be parents and no duties as parents). In the case of surrogate gestation, the link (both biological and psychological) between the surrogate and the fetus establishes a special kind of relation.

77. Gametes carry genetic inheritance (via the DNA sequence). A procreation with sperm, oocyte or embryo donation dissociates, on the one hand, the genetic lineage (maternal or paternal), and, on the other hand, the filiation. The gamete donor (or the embryo-donating couple) agrees to separate from his/her genetic inheritance; by accepting the gift, the recipient agrees to interrupt his/her own genetic lineage. The embryo donation is unique since the two genetic lineages, maternal and paternal, are different from those of the couple that hosts the embryo.

78. Disjunction also exists between procreation and education. The same social pressure in favour of freedom challenged the traditional scheme of a basic family, a mother plus a father plus children, toward more adults entering into children's life and education without any direct biological link with them.

79. It is generally recognized that fertility declines rapidly after 35 years in women. Oocytes freezing allows to delay parenthood for women and question their physiological limitations related to natural maternity. Taking into consideration the natural fertility, access to ART is presently limited in age in some countries (from 43 years old to 50 years old for women, over 65 for men) or has no limit in some other.

III.2. Moral consequences of novel parenthood (biological, social, intentional, psychological, legal, cultural)

80. The development of genetic testing may transform the role of parents: from “chance” to “choice”, and parenthood may become a role not only of accepting babies, but also of planning and designing babies with specific characteristics. Pre-conceptional genetic test, non-invasive prenatal diagnosis and pre-implantation diagnosis may prevent devastating diseases that result in early death projecting the "best possible existential condition" (procreative beneficence). However as mentioned in a recent IBC report on the human genome and human rights (UNESCO, 2015, paragraph 22), the multiple uncertainties of numerous genetics variants (VUS = variant of unknown signification) require that these tests are done in a medical environment with a high level of genetic counseling. Erroneous or misinterpreted results could lead to the destruction of healthy and normal embryos or foetuses. The lack of support for a number of childhood disabilities may lead to discrimination and stigmatization or even a novel aspect of eugenism.

81. Does the new parenting question parental skills? Frequently heard or read is that the abandonment of the traditional family structure (increase in the number of divorces, mono-

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3 The French anthropologist Françoise Héritier said: “There is a contradiction in the terms that are used when we talk about biological parentage. Filiation is a social bond, which implies entry into a lineage and can be completely decoupled from biology, as in adoption. It does not take away his legitimacy. There are no biological fathers, only fathers (social) and genitors. Most often the parents and genitors are the same person, but in reality, they are not confused. The childbirth (feminine) or the begetting (masculine) can be dissociated from the filiation.”
parental families, reshuffled families, non-marital births, same-sex couples, etc.) and the resulting transformations would have affected parental functions and skills. A large number of parents would no longer be able to perform their tasks; they would disengage from their children, become incompetent, irresponsible and resign. This discourse, which emphasizes parents’ ideas of irresponsibility, failure or resignation as explanatory factors for societal problems, and the strengthening of authority as a means to reduce them, seems to be based more on opinion than on in-depth analysis of the phenomena or scientific data.

82. Parents may be worried about how to share information with their child about how they are procreated. They think that they will have to start talking about sexuality and reproduction in a way that is not appropriate, or will not be well understood by a young child. One can begin to tell very young children how they were desired and procreated and completed as they grow and understand better.

83. There is no right to have a child. On the other hand, the Convention on the Rights of the Child enshrines the child as a rights-holder, while recalling that the responsibility for raising and ensuring the child’s development rests primarily with the parents.

84. The presence of one parent only, as in the case of the requests for reproduction by single women and widows, raise several specific questions. How the child can build a relationship in the absence of one of the parental figure? What will be the impact on the child of the bereavement suffered by the widow? The lack of one of the two sexual parental figures creates a risk of the child getting tangled up in parental narcissism. Mono-parental families are also naturally more vulnerable.

85. Late parenthood result in generational disjunction with increased risk that the parents are not able to understand they children’s life style. Furthermore, it can create a novel moral charge for the child to support his/her old parents.

III.3. Globalization vs. contextualization

86. Society is a third party who intervenes at different stages of the process between procreation and filiation. This is particularly true for ART since its use involves a number of collective resources and leads to the birth of children. It supervises ART (authorizes them or not, organizes them or not, finances them or not) by seeking balances between the autonomy of subjects and the consequences of this autonomy on third parties that must be protected from risks of injustice or social pressure.

87. Society must then organize the consequences, for the right of parentage, of the intervention of others in procreation. Laws are very different from one country to another global values but local interpretations. As examples in case of sperm donation and insemination: (i) a presumption of paternity of the social father excluding the possibility of contestation of this paternity; (ii) conditions of right of the child of access to his/her origins; (iii) the possibility, for a couple of women, for the mother’s wife to adopt the spouse’s child.

88. Before ART, physicians had no involvement in parenthood. Now that they are needed to implement the technique, they can promote it as the best choice but also may voice against procreative relentlessness.

89. Women still bear most of the burden of procreation: pregnancy and its risks but also most of contraceptive techniques, double work and children charges, delayed carriers and consequently lower incomes.

III.4. Adoption

90. A common and global observation is the drastic decrease in the number of adoptions. Multiple reasons might be involved including more regulations in low-income countries and increased access to ART.

<to be completed>
IV. SOCIAL AND PSYCHOLOGICAL ASPECTS

IV.1. Reproductive state policies

91. The population projections published by the United Nations Population Division is considering a growth of the world population over 9 billion/over 10 billion by mid-century and about 10 billion/16 billion by the end of the century; the differences between these levels are represented by half a child per woman (UNDESA, 2013).

92. UN organizations on environment, development and population consider that there is a need to recognize that there is a strong relation between population dynamics and sustainable development, human reproductive rights, education and empowerment of women, and call for policies that promote sustainable consumption and production as well as policies that address population dynamics (UNFPA, UNDESA, UN-HABITAT and IOM, 2013; UNFPA, 2012).

93. All countries are experiencing a shift in age structure of the population due to a better expectancy of life; this change is affecting human relationships and age of retirement, production and income distribution without changes in the social services for health and education. Additional to this situation, family planning is part of human reproductive rights recognized in the Cairo Programme of Action (UNFPA, 1994) and Beijing Declaration (UN, 1995), but millions of persons have no access to its different forms.

94. The early 21st century has witnessed the abandoning of control policies on reproductive life for statements on human-centered and rights-based policies, but policies against poverty, for access to sexual and reproductive health care, reduction of teenage pregnancies, infant and maternal mortality, empowerment of women and gender equity need to be more and better developed.

95. In this context, application of ART represents a new ethical dilemma between the right of individual to have his/her own child and the rights of the community to basic health care and quality of life. Some governments have integrated ART in their demographic policies favoring its development, others have approved legal obstacles and others have an attitude of “laisser faire” (UNFPA, 2012).

IV.2. Psychological aspects

96. WHO considers that mental health problems may develop as consequences of reproductive health problems and this is closely interwoven with physical health (WHO, 2009). Studies of the psychological impact of infertility in developing countries are scarce, reflecting their health priorities. The most of existing studies in these countries are about the social and cultural causes, and impact of infertility on women.

97. The development of ART has put a new pressure on the individual, his/her partner, family and the society to look at ART as a possible way to resolve the problem of childlessness. Where treatments for infertility are accessible, most infertile women/couple choose to use these technologies. At the same time, unsuccessful fertility treatments may result with depression as each treatment arouses with optimism and may end with sadness and feeling of loss of control after a failure. The European Society of Human Reproduction and Embryology recommendations address the behavioral, relational, emotional and cognitive needs of infertility patients (Gameiro et al., 2015).

98. It should be emphasized that not only women, but also men may experience a negative psychological impact of infertility and failed ART treatment. Repeated attempts of unsuccessful assisted reproduction cycles may lead to a state of lasting sadness and lower self-esteem also in men. At the same time, research concerning the psychological and social aspects of infertility and ART treatment focuses more often on women than men (Fisher and Hammarberg, 2012).
99. Surrogacy may represent the last opportunity to become parents and it may repeat the cycle of optimism and anxiety, depending of the health conditions of the surrogate and of the opportunity to develop a relation with her. If the surrogacy leads to problems related to pregnancy, the anxiety of intended parents may rise.

100. Some contracts prohibit further contacts between the intended parents and the surrogate, and both parts may suffer from a lack of information. In some countries, the staff of ART clinics includes a psychologist to deal with these issues, or the intended parents can address supportive non-governmental organizations.

101. The socio-educational level of the candidates for surrogacy is important for the relations with the intended parents and the society. Where candidates are self-empowered, the relational contract may be relatively equal. Where candidates are choosing surrogacy as a unique option to maintain their families, the surrogate can face family and social issues of discrimination.

102. Administrative and health problems may create anxiety and demoralization of the surrogate reducing her capacity to provide sensitive and responsive care to her other children, affecting their self-esteem and psychological health (WHO, 2009).

103. The surrogate must achieve the required separation distance from the baby whom she had carried for nine months. This distance will depend of the number of previous pregnancies, absence of gestational problems and family and social support.

104. Cesarean section is considered safer than vaginal birth as doctors can control every stage of this process. But frequently the surrogate has to face this situation without the information about the impact on her future reproductive life and without help of her family; postnatal depression may be severe, and the majority of contracts do not consider the follow-up of surrogate after birth delivery (WHO, 2009).

105. In some cases, the newborn needs to stay with the surrogate until the intended parents try to resolve the legal and administrative problems, and she may develop an affective relation to the newborn and the separation will be more difficult. If both parties are confident, the intended parents may permit to continue some kind of relation and the situation will be more supportable for her. But generally, surrogate’s right to mental health is often ignored.

106. Studies on couples after ART treatment have showed that their relationship is good (Faria et al., 2012). The rate of separations and divorces are not different from general population if the search for a child is related to improved communication and coping strategies (Sydsjö et al., 2011).

107. People living in countries where gender equality is reached can cope with the psychological impact of infertility and ART process better then those living in countries where gender inequalities are the social path ground. Lack of respect for differences in reproductive choice and gender inequality represents a violation of all human rights and of the UDBHR.

108. If gamete donors agree with postmortem ART or gestation of the child, the principle of autonomy will not represent a problem for the intended parents or the child, as the child will be part of a life project. If this consent is not clearly defined, and one of the intended parents or grand-parents insist on postmortem ART or gestation, it may be considered as a violation of autonomy of the deceased. The child may develop a poor self-esteem, shame and rejection of the present parent or grandparents.

IV.3. Technological imperative

109. Technological imperative is a concept stating that new technologies are inevitable and essential and that they must be developed and accepted for the benefit of society. Technological imperative in health care represents the tendency to prioritize the
development and use of new technologies regardless of their cost, quality of care and risks of “biosecuritization” (Fisher and Monahan, 2011). Reaction to this phenomenon is often based on the principle of justice (access to care for all and evaluation of costs), beneficence of politics of prevention, and the importance of “nature” against bio-medicalization.

110. Health professionals accept and participate in this evolution of technologies, considering better and safer patient outcome, efficiency and productivity, and an increasing dependence. Following the doctors, patients are expecting or demanding high-tech care, because they look for any possibility of cure.

111. ART is often advertised as “The” response to infertility to ensure safe delivery of a healthy baby, without discussing the risks. This new technological imperative limits a person’s autonomy when making decisions about ART or surrogacy, because it overlaps with the hopes and the societal expectations of how a potential parent should behave when making decisions.

IV.4. Increasing age of parenthood

112. Increasing age of parenthood is related to longer education of women and less stability of employment for younger generation. At the same time studies have shown that health problems in children are more frequent when one or both parents are over the age of 60. This phenomenon of increasing age of parenthood has been reinforced by access to ART for rich and middle classes. But the prohibition of pregnancy after 40-50 years in countries with an expectancy of life more than 80 years may reinforce social inequities between men and women, as this prohibition affects only women who need ART.

113. Life expectancy needs to be taken in account to estimate the economical and psychological capacity for caring for a minor (under 18 years), as university education may extend this dependence until 25 years. Pregnancy in older parents means need for more health services, and a new organization of work and retirement. In the majority of countries health services are private, in others the budget of public services is insufficient; day care does not exist or it is very expensive and restricted to children of certain age.

114. ART represents a scientific revolution that needs more research and discussions about its social impact on increasing age of parenthood and necessary changes. It is important to discuss the importance of individual and societal responsibility and the need for changes in the organization of the social services.

IV.5. Social aspects of surrogacy

115. Surrogacy is an accepted practice in many countries and may involve payment of some sort or can be altruistic. Both types of surrogacy need to take in account Article 10 of the UBDHR on equality, justice and equity, and Article 13 on solidarity and cooperation, Article 14 on social responsibility and health and Article 15 on benefit sharing for the organization of services for reproductive health (UNESCO, 2005). Women practicing altruistic surrogacy claim their adhesion to solidarity and cooperation but care for gestation and delivery has a cost that needs compensation (solidarity of the intended parents to the surrogate).

116. Existing laws on altruistic surrogacy fix strict conditions based on three priorities: “first to secure the interest and rights of the child; second to secure the autonomy and welfare of the surrogate and her family; and third to enable the successful involvement of the intended parents (...) It prohibits commercial surrogacy and solicitation of commercial surrogacy services abroad” (GIRE, 2017). Considering that actual societies are based on market relationships, this proposal is utopic as it does not take account the differences and inequalities between countries, favoring reproductive trafficking.

117. In some cases, an agency makes the arrangements for surrogacy. It is a form of organized commercial enterprise involving payment to the agency, clinic, and the surrogate.
Commercial surrogacy is officially permitted in some countries or states and public advertising on Internet is permitted. Some clinics present a catalogue of surrogates in the same way of offering gametes/embryo donors.

118. Some philosophers consider that the recognition of the market is a fact in the 21st century and maternity is a social construct separated from gestation; so gestation can be sold and it needs a legal regulation of the market. Some of the states have adopted regulations for the registration of the child born by surrogacy but it is largely considered a private deal between afferents (private clinics/organization) and “buyers” (intended parents). This lack of legislation and protection of surrogate opens the door to many violations of her rights: as she is considered as a “medium” (her uterus), the basic imperative of respect for human dignity and integrity are violated. The compensations of costs of pregnancy and disturbances in her working or family life depend of her capacity to negotiate a contract and they need protection by the society or laws.

119. When clinics/organizations prohibit relations between the surrogate and the intended parents, they violate right to information creating obstacles to the development of solidarity between both parties. The reality of impositions of the market in social life cannot permit us to forget the differences between “things” and “living entities” nor to abandon moral principles and human rights.

120. The existing children of a surrogate may be ashamed and their self-esteem may be affected if part of the family or the society is discriminating their mother. Older children may develop feelings like envy, jealousy or anger if the health care during their mother’s surrogate pregnancy are much better than during her previous pregnancies or if the children must be separated from her during the pregnancy. Surrogate’s family and the family of the husband may experience some negative emotions leading to the situation where the surrogate feels isolated.

IV.6. Cross border reproductive health care

121. Tourism is an opportunity to know other people and countries trough a relation of mutual agreement and respect of differences. Speaking of reproductive tourism or fertility tourism is an attempt to trivialize an act of responsibility. Cross-border reproductive health care represents a more adequate definition reflecting the reality of health, social and ethical situation, such as the unavailability of treatment in one country and the opportunities provided by another country.

122. Considering that equal access to qualified health services is a human right recognized by the majority of countries, unavailability of infertility treatment in some countries represents a violation of this individual right. Law may restrict availability of ART for the all citizens or for certain categories, reflecting discrimination against vulnerable people who need specific medical services to resolve their problem. Lack of legislation or prohibition of particular ART techniques in some countries is one more factor facilitating cross-border search for reproductive care. Individuals and governments are transferring their problem to another country, and creating legal conflicts between national law and extraterritoriality of restrictive laws (ESHRE, 2008).

123. Unavailability of ART may reflect the lack of health care resources in low income countries or the public health priorities defined by the determinants of health in a specific country; the cost of ART may not be part of these priorities. But governments need to recognize the problem of infertility by addressing its preventable causes, providing support and alternatives for people with this condition, and considering options to reduce the out-of-the-pocket costs for infertility patients. Private cross-border reproductive health care has an impact on public health care and its budget through the cost of the negative consequences of surrogacy.

124. Cross-border movements from rich countries to resource-poor countries where poverty is dominant and women are unemployed may deepen the difficulties of local health
services and lead to the exploitation of this vulnerable group. The vulnerability caused by poverty and gender relations of power is a factor that must be considered in the context of cross-border reproduction, as it may be a factor of coercion (Lyzwinski, 2013).

125. Defenders of transnational reproductive commerce argue that they help poor women to get an income, or that it is a business activity for a better economy (Paraskou and George, 2017). Some bioethicists answer that it is a problem of human rights and refusal of organ trafficking must include uterus/body trafficking. There is an ethical conflict between the rights of intended parents to resolve their needs and the concept of exploitation of poor women, reproducing domination of rich people and violating equality and solidarity.

126. Cross-border reproductive care may overcome racial prejudices but it can also reinforce them through the choosing a particular ethnic phenotype (Qiao and Feng, 2014).

127. Professional have the responsibility to provide information, counseling and referral for infertility patients, taking in account the guidelines of national and international professional societies of the physicians treating infertility (ESHRE, 2008; ECASRM, 2016). In resource-poor countries medical doctors have to choose between the reproductive rights of the infertility patients and health priorities as well as rights of the local populations and candidates to ART and surrogacy.

IV.7. Welfare of the child

128. The Convention of the Rights of the Child recognizes the child’s right to protection from discrimination (Article 2; irrespective of the type of family they come from) and violence (Articles 19, and 33 to 40). States have the obligation to organize services for children’s welfare (Articles 4, 6, and 24 to 32) and legal recognition (Articles 7 and 8), always acting in their best interests (Articles 3 and 18) and respecting their own opinions (Articles 12 to 15). (UN, 1989)

129. Organizations working for the respect of children rights consider that their wellbeing (happiness and positive emotions) is included in the WHO definition of health. So, States have the responsibility to develop social and economic programs for children’s welfare. The family has the responsibility to protect a child from violence, abuse and neglect and to ensure good relationship and security to prepare them for social interaction. These statements apply for all children without discrimination.

130. In the majority of countries where surrogacy is permitted, the child receives the citizenship of his/her biological mother and of the intended father, but the stigmatization of surrogacy often affects this right, living the child without protection during the bureaucratic procedures (GIRE, 2017). In a context of nationalistic movements, some people oppose to national registration of the child, pointing that children with two nationalities allow their father to buy the rights owned by the nationality of the child/surrogate to pass by the economic/fiscal laws of his own country.

131. In countries where surrogacy is prohibited, the application of the prohibiting law is also directed against the child representing discrimination and a violation of all his/her rights.

132. Existing studies have not showed differences between children born after ART and other children when they were part of their parent project of life, and they were not discriminated by the society. Social recognition of the child is essential for the construction of the self. Education about the children rights is needed for his/her integration and self-development. Researches about these topics are increasing in northern countries where ART and surrogacy are socially accepted, and they show that there are no differences between psychological development of children born form ART and other children when they are loved and supported by their parents and their family.

133. The Convention of the Rights of the Child recognizes his/her right to information (UN, 1989, Article 17), so his/her right to know who are his/her genetic parents and even the surrogate. Based on studies on adoption, health workers recommend providing information
to the child starting from an early age: informing him/her about his/her personal history of birth as a project of life of his/her parents with the help of other people, in this way children will develop a healthy sense of identity, trust and self-esteem and reinforce their confidence with their parents.

134. Providing information on his/her genetic and gestational origins to a child does not mean a financial or educational responsibility of the donor or surrogate to this child and this position must be integrated in the information as soon as possible. This approach needs a clear and voluntary informed consent from the donors and the surrogate, and must be included in national laws.

V. LEGAL LANDSCAPE

V.1. International law

135. Article 23 of the International Covenant on Civil and Political Rights (ICCPR) (UN, 1966a) recognises the family as the natural and fundamental group unit of society and obliges States to take appropriate steps to ensure equality of rights and responsibilities of spouses as to marriage, during marriage and at its dissolution. The Article requires States to make provision for the necessary protection of any children in the event of the dissolution of the marriage. Article 24 in turn places the responsibility of protecting minor children on the family, society and the State. These two Articles recognise the central place of the family as the natural setting for parenthood and protection of minor children.

136. The International Covenant on Economic, Social and Cultural Rights (ICESCR) (UN, 1966b) equally requires the protection of the family as the fundamental societal unit, which is responsible for the care and education of dependent children (Article 10). The Article further requires special measures of protection and assistance to be taken on behalf of all children and young persons without any discrimination for reasons of parentage or other conditions.

137. Although the ICCPR provides for equality of rights and responsibilities of spouses, there are concerns regarding the inadequate support systems in place for people with disabilities who wish to become parents such that disability and parenthood are viewed as mutually exclusive terms. This can lead to discrimination, sterilisation or forced separation of children from parents with disabilities. This situation prevails notwithstanding the fact that Article 23[2] of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) (UN, 2006b) and its Optional Protocol (A/RES/61/106) obliges States take effective and appropriate measures to eliminate discrimination against persons with disabilities in all matters relating to marriage, family, parenthood and relationships. Article 23[4] provides that no child shall be separated from parents on the basis of a disability of either the child or one or both of the parents. The Article obliges States to ensure that children are not separated from their parents against the parents’ will, unless such separation is legally determined to be necessary for the best interest of the child. The extent to which this Article can secure parenthood rights and opportunities for persons with disabilities is unclear since it is yet to be interpreted by any court or the Committee on the Rights of Persons with Disabilities (Rimmerman, 2015; Rothler, 2017).

138. The Convention on the Rights of the Child (CRC), which was adopted by the United Nations General Assembly in 1989, contains several rights that are relevant in the context of modern parenthood achieved through assisted reproduction, including:

a. The right of a child to know and be cared for by his or her parents (Article 7[1]);

b. The right of a child to preserve his or her identity, including family relations (Article 8[1]);

c. The right of a child not to be separated from his or her parents against their will (Article 9[1]);
d. Responsibility of parents or legal guardians for the upbringing and development of the child, with the basic concern of the best interests of the child (Article 18(1));

e. The right of the child to the Convention rights without discrimination of any kind (Article 2(1)).

139. These principles were reaffirmed in two subsequent instruments, namely the United Nations Declaration on Social and Legal Principles relating to the Protection and Welfare of Children, with Special Reference to Foster Placement and Adoption Nationally and Internationally (UN, 1986), and the Hague Convention on the Protection of Children and Co-operation in Respect of Intercountry Adoption (HCCH, 1993). In both instruments, States are called upon to give priority to ensuring that a child remains in the care of his/her own parents; or if not available, extended family members. Only if this is not possible, should States then consider other forms of permanent family care, firstly within the child’s state of origin before considering other states. Intercountry adoption should be made in the best interest of the child, and with respect for his/her fundamental rights, with safeguards to prevent the abduction, the sale of or traffic in children.

140. Parental responsibility is also provided for in the Hague Convention on Jurisdiction, applicable law, recognition, enforcement and co-operation in respect of parental responsibility and measures for the protection of the children (HCCH, 1996). Under the Convention, “holders of parental responsibility” are in most cases, the parents of the child. In the event that the parents are deceased or no longer capable or authorised to take care of their child, a guardian can be appointed to represent the child. The guardian can be a relative, a third person or an institution.

141. In order to protect the rights of a child to association with his/her parents, states have an obligation, as parens patriae, to establish rules that would determine the adults responsible for the child’s upbringing and development. Legal parentage benefit children – through establishing clear lines of responsibility and obligation, leading to long-term stability; as well as parents who are seeking custody or visitation rights. There are mainly four ways through which legal parentage have been defined in different legal systems, namely: the marital presumption, genetics, procreative intent, and parental conduct.

V.1.1. Marital Presumption

142. Typically, the woman who gives birth to the child, i.e. the gestational mother, is recognised as the legal mother of the child, regardless of genetic relationship between the woman and the child. Childbearing is the prima facie condition for legal motherhood in most jurisdictions, unless there is a parental order or adoption that recognises another woman as the legal mother.

143. As this rule for determining legal motherhood was established before the development of assisted reproduction, it is based on the assumption that the child was conceived with the woman’s own eggs and that there would be no doubt that the child belonged biologically to the woman as conception and childbearing resided in the same woman. Assisted reproductive technologies have resulted in the decoupling of conception and pregnancy, but this approach to determining motherhood continues to be relevant today, ensuring that there is an adult that is immediately responsible for the care of the born child.

144. Where the gestational mother is married, the man to whom she is married is usually recognised as the legal father. The martial presumption has been the traditional way of defining legal fatherhood, and serves a protective function for the child by assigning support obligations to the man most likely to be involved in the upbringing of the child, before and without the need for ascertaining genetic relationships.

V.1.2. Genetics

145. Another way to define parentage is through genetic link. While genetic ties may now seem to be the most obvious and intuitive rule for establishing parentage, genetic testing is a
relatively new technology and genetic parentage is therefore a modern concept only possible due to recent developments.

146. ART has made it possible for a woman to be carrying a child that is not genetically hers – either because a donated egg was used, or in the case of surrogacy. The development of genetic testing, and judicial acceptance of genetic parentage, allows for the genetic mother to be recognised as the legal mother, and be accorded full parental rights over the child.

147. This modern means of establishing parentage also allows for men not married to the mother to be legally recognised as the father through genetics, which confers full parental rights, as well as accrues obligations towards the child. Hence, except where clear rules allow for anonymous sperm donors to give up their parental rights, the genetic father of a child retains legal financial responsibility for his child, regardless of the state of his relationship with the mother.

V.1.3. Parental Conduct

148. It is widely accepted that there may be adults who are functionally performing the role of parent to a child, even though they are not the “natural” parent. In loco parentis – “in place of a parent”, is a doctrine in common law, and some civil law jurisdictions may recognise an adult who had assumed a daily role of caregiving for a child for a substantial period of time as a “de facto parent” who is entitled to some parental rights over the child. Under Islamic law, a woman who has fostered a child through breastfeeding may also be regarded as the legal mother.

149. The best interest of the child is the main justification proposed in such approaches based on parental conduct. There is an assumption that a deep bond had been established between the child and the functional parent as a result of the shared daily life, and it is to the benefit of the child to maintain that relationship with the adult who has been the child’s source of physical, emotional and psychological support. The parental conduct approach acknowledges the investment and contributions that the main caregiver had made in the child. The onus however lies with the person who had been acting in loco parentis to rebut the “natural parent presumption”, and show his / her fitness vis-à-vis the natural parent’s. In most cases, the functional parent would not be accorded full parental status, but would at least have more parental rights over the child than a legal stranger.

V.1.4. Procreative Intent

150. Intentionality to have a child is another approach that some courts have taken to determine legal parentage. This is a modern concept that has arisen in response to new possibilities brought about by assisted reproductive technologies, which has enabled multiple adults to be involved in the procreative process.

151. For example, the emerging techniques of mitochondrial replacement to prevent the transmission of serious mitochondrial disease, where approved, would result in a “three-parent baby” because there would be two biological mothers – the intended mother who contributed the nuclear DNA and the egg donor who provided the healthy mitochondria (mitochondrial DNA), and the father whose sperm had been used. The scenario may be further complicated by additional persons with parental interests, such as if a gestational surrogate was involved, or a donor sperm was used. In situations involving multiple adults who may have equal claim to parental status based on the other definitions of marital presumption and genetics and parental conduct, parental intent may provide a supplementary perspective to resolving conflicts.

152. Defining parentage by procreative intent recognises that a couple seeking assisted reproductive technologies had planned in advance to conceive and raise that child. Most of the time, intent is taken to be operative at the point of conception. Many jurisdictions have stipulated that the man legally married to the woman seeking assisted reproductive services,
and who consented to undergoing the process, shall be regarded as the legal father, a logical extension of the regime of marital presumption. However, procreative intent may also be applied more widely, regardless of the marital status of the couple and the genetic link between the parents and the child. Procreative intent may therefore be an important consideration in cases such as disputes following separation or accidental IVF mix up.

V.2. Reproductive rights

153. The development of ART and, in general, of the emerging technologies related to procreation has had a direct impact not only in the scientific and ethical field, but also in the legal one itself. In particular, in regard to rights and freedoms and the role of the public powers in the guarantee of what, being in the past a mere desire (to have children), may already be a reality. While reproduction is a purely biological fact, by producing legal effects, fundamentally, through filiation, it becomes a legal fact. Therefore, the debate is to determine if this biological fact that can be transformed into a legal fact constitutes an expression of mere freedom or of true entitlement, because one or the other determines a legal duty of a different nature and a configuration for the State and third parties.

154. A distinction may be made between a right as a liberty or freedom, and a right as an entitlement or benefit. The former implies protection against interference by the State or other individuals, so long as the exercise of the act does not harm others; while the latter entails not only the removal of obstacles but also the provision of assistance by the State and others to fulfil that right. This discussion shall focus on the reproductive rights of individuals who are unable to have children by natural means either due to infertility or absence of the necessary conditions. It is therefore also possible to make a further distinction between the reproductive rights of those who are unable to have children on a biological or physiological basis – and for whom it is therefore also an issue of health – and those are not clinically infertile but are unable to have children due to social or personal choices. The question, in legal terms, is whether reproductive autonomy should be recognized, as a mere option within the abilities of the individual, or a true right to reproduction. Are fatherhood or motherhood personal options or expressions of a desire that should be guaranteed and facilitated by the legal system?

155. If we take into account the terms expressed by the International Conference on Population and Development in Cairo (UNFPA, 1994) and the Fourth World Conference on Women in Beijing (UN, 1995), referring to reproductive and sexual health concepts, the reports suggest that that reproductive rights is an entitlement and not a mere liberty. Paragraph 94 of the Beijing Programme of Action stipulates that:

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. In line with the above definition of reproductive health, reproductive health care is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and solving reproductive health problems. It also includes sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counselling and care related to reproduction and sexually transmitted diseases. (UN, 1995, paragraph 94)
However, in Europe, for instance, the Ad Hoc Committee of Experts on Progress in the Biomedical Sciences (CAHBI) of the Council of Europe stated that the protection of human life does not guarantee the right to procreate through artificial procreation, except in cases of infertility (CoE, 1989). The European Court of Human Rights has also recently declared, in Paradiso and Campanelli v. Italy, that the right to family life proclaimed in Article 8 of the European Convention on Human Rights, does not cover the mere desire to form a family. Paragraph 141 of that ruling states that:

[The provisions of Article 8 do not guarantee either the right to found a family or the right to adopt [...] The right to respect for “family life” does not safeguard the mere desire to found a family; it presupposes the existence of a family (see Marckx, cited above, § 31), or at the very least the potential relationship between, for example, a child born out of wedlock and his or her natural father (see Nylund v. Finland (dec.), no. 27110/95, ECHR 1999 VI), or the relationship that arises from a genuine marriage, even if family life has not yet been fully established (see Abdulaziz, Cabales and Balkandali v. the United Kingdom, 28 May 1985, § 62, Series A no. 94), or the relationship between a father and his legitimate child even if it proves, years later, to have had no biological basis (see Nazarenko v. Russia, no. 39438/13, § 58, ECHR 2015 (extracts)), or the relationship that arises from a lawful and genuine adoption (see Pini and Others v. Romania, nos. 78028/01 and 78030/01, § 148, ECHR 2004 V (extracts). (ECHR, 2017, paragraph 141)]

And paragraph 125 adds as a conclusion that “the Convention does not recognise a right to become a parent” (ECHR, 2017).

In a different part of the world, the Inter-American Court of Human Rights, in the case of Artavia Murillo et al. v. Costa Rica, November 28, 2012, states that:

[The right to access the highest and most effective scientific progress for the exercise of reproductive autonomy and the possibility of forming a family derives the right to access the best health services in reproductive assistance techniques, and, consequently, the prohibition of disproportionate and unnecessary restrictions to exercise the reproductive decisions that correspond to each person. (IACHR, 2012, paragraph 150).

Therefore, regardless of what could be deduced from the broad terms on reproductive health expressed in the Cairo and Beijing Programmes of Action, the right to procreation is not recognized as a right of benefit under International Law, but as a mere right of freedom. It can even be affirmed that recognizing it as a right of performance is contrary to the very concept of dignity of the person to be born, since it transforms into a mere object the subject that is going to be born. The object of rights are things, but not human beings, this explains why the right to procreation is not a matter of exercising freedom. In addition, it is questionable that the object of the law can be something that, by its nature, is beyond the scope of human freedom. It would be attributing a power, that of having a child, that even nature does not necessarily give to those who have the ability to procreate naturally.

The transformation of an individual desire into an enforceable right against the State and third parties, requires an evaluative judgment that addresses the very nature of the desire, the individual goals pursued from the perspective of dignity and the free development of the personality of the individual, as well as individual and the social purposes that are satisfied through it. In our case, the desire to have a child may be considered, from an anthropological perspective, as a laudable goal, for the majority of individuals as well as for society itself. While this desire may not be unanimous, it is difficult to deny that it is the majority view, and, in addition, it must be interpreted within the historical context in which it is requested that the desire be made a right. Not all desires, however laudable and plausible, can be transformed, by law, into realities, especially when they affect third parties or the community itself. The desire to have a healthy, strong, high or intelligent child is not
something morally objectionable, and is common to every father or mother. However, when the desire transforms into a legal right that allows parents to access interventions on the embryo to alter certain genetic conditions for enhancement purposes, the implementation of such a desire ought to be questioned. And even more, when the decision has repercussions on a third party (i.e. the child), and on the own values on which the community is based, such as the protection of vulnerability and respect for disability. Reproductive rights should be balanced against the maximization of common good.

160. The transformation of desires into legally enforceable rights should make us reflect on the values promoted by society. The debate cannot remain in the sphere of the individual or forget the social consequences that this might have, nor can it ignore the context and time in which the debate arises. The desire to have a child, when this is naturally not possible, should not be assessed negatively, but trying to fulfill the desire through assisted reproductive techniques when other alternatives to having children such as adoption is available, can be considered so positive or, at least, it generates doubts. Above all, when there are millions of human beings who are born in contexts of abandonment and absolute vulnerability. We do not pretend to blame the one who freely decides to resort to the reproductive possibilities offered by the new techniques, but to call for reflection on certain prejudices or myths that, having arisen in certain historical contexts, we should rethink if they are currently valid. Perpetuating the biological inheritance could be shown as a positive or an individual or social value in the recent past, but it is not necessary to presume that this must be the case now. In a secular society such as exists in many parts of the world, it is a true contradiction to maintain the paradigm of biological inheritance. This does not mean to see this fact in a negative way, moreover, when nature allows it to show the individual the natural procreation faculties, but from there to convert it into an ethical and legal requirement, it goes a long way in the current context of overpopulation and extreme poverty in many parts of the world.

161. It has been said that the transformation of a desire into law requires an ethical, legal and, in addition, economic-political foundation, and precisely this latter does not seem to report so favourably in favour of such a transformation. It is important to reflect on the adoption and the effects of the increasingly frequent recourse to techniques of assisted human reproduction. The data reflecting a reduction in adoptions in favour of reproduction techniques and other options such as surrogate pregnancy suggest. Once again, it can be seen as if one part of the world is once again forgetting the other or at least does not reflect on the impact of their desires and behaviours on inequality, by not opting for adoption as an extraordinary mechanism to, at least, mitigate it.

162. Reproductive rights must be shaped by a balance between freedom and responsibility. Furthermore, responsibility should not be relevant only in the context of the care of a child that is already born, but should also be considered when a couple intends to transform their desire to have a child into reality. Responsibility towards the child that an individual intends to bring into this world before the act of reproduction should already be the new paradigm. Notably, a responsible citizen is one who attends to all values in conflict or at stake and not only to the pure satisfaction of a desire, no matter how abstract, plausible and protectable by law. When considering the transformation of individuals' desire to have their own children into reality through the use of ART, we should not forget that those are not just preferences that are exercised in respect of their own person, but there are also possible implications on a third party, their child. Therefore, behind the new paradigm of artificial or assisted reproduction and the right to reproduction that seeks to be built under the protection of it, new dilemmas and risks are included not only for social justice but also for the dignity of human life itself.

V.3. Best interests of the child

163. The United Nations Convention on the Rights of the Child (UN, 1989) states that the best interests of the child shall be a primary consideration in all actions affecting children
“whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies” (Article 3). State Parties are obligated to ensure the protection and care of all children “as is necessary for his or her well-being, taking into account the rights and duties of his or her parents, legal guardians, or other individuals legally responsible for him or her, and, to this end, shall take all appropriate legislative and administrative measures”. Furthermore, the Convention specifies that best interests of the child must be assessed in the situations of: separation from parents (Article 9), family reunitification (Article 10), parental responsibilities (Article 18), and adoption (Article 21), amongst others. (UN, 1989)

164. Article 7 of the Convention on the Rights of the Child specifies that “[t]he child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality and, as far as possible, the right to know and be cared for by his or her parents” (UN, 1989). This leads to a broadly debated issue regarding anonymity of donors vs. the right to know one’s origin. Some authors argue that child/parent relationship must be built on honesty and mutual respect leading to the duty to share information on the nature of the child’s conception. This approach argues for right to access information on the identity of the gamete donor at a certain time, if requested. Opponents argue that access to this information might have an adverse effect threatening personal identity and damaging relationships.

165. The best interests of the child encompass “both the full and effective enjoyment of all the rights recognized in the Convention and the holistic development of the child” (CRC, 2013). In general, the concept of best interests covers medical (e.g. safety of medical procedures, evaluation of risk/benefit ratio), psychosocial (e.g. security and identity), material (e.g. access to food and shelter) and legal (e.g. inheritance rights) interests of the child, however it is hard to achieve consensus what it means in the context of ART.

166. In the past the use of assisted reproduction - especially the use of donor gametes - has been highly stigmatized in different cultural settings leading also to stigmatizing children born by ART and questioning the best interests of the child; however increasing use of ART gradually removes the early stigma associated with the procedures and normalizes them. Research studies show that adolescents conceived by ART “can integrate knowledge of their conception without much difficulty” (Ilioi and Golombok, 2015).

167. Ethical debates on ART rarely use the concept of best interests of the child as a paramount consideration. One of the possible reasons is the difficulty to define interests of future child as a not-yet-existing person. In any case, the best interest of the child as one of the most relevant principles of the international legal framework obliges to underline the prevalence of it over another interest involved in ART. The preferences or, even, rights of parents cannot prevail over the best interest of the future child. Trying to satisfy the wishes of parents without considering the legal position that those could provoke for the child cannot be protected by a legal regulation which main goal is to protect that interest.

168. Advocates of ART as a real expression of wishes transformed on rights usually consider that the existence of a firm procreative desire on the part of an individual or couple is what a child fundamentally needs for its development, and is thus the best foundation and support for the parent-child relationship. Yet this desire to have a child is not, in itself, a guarantee that the best interests of the child will be the guideline according to which the parents will act. It only tells us that someone wants to have a child. The risk that this desire may impact negatively on the child, because it may lead to the child being perceived as an object that has to meet the standards imposed by the desire, cannot be ignored. This risk of objectification of the child is present in all parent-child relationships, and the existence of a desire to have a child at all costs may exacerbate this. Responsible parents are not those who simply have a strong desire to be parents but rather those who direct this desire to the full development of their children rather than to their own personal satisfaction. The intending
parents’ desire to have a child shouldn’t be identified with a guarantee that the best interests of the child will be safeguarded.

VI. ETHICAL FRAMEWORK

VI.1. Human dignity

169. Since the Second World War, (human) dignity is a frequently used concept in bioethics. The very first sentence of the preamble to the Universal Declaration of Human Rights reads: “Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world” (UN, 1948). Since then, this principle has been at the heart of most international human rights instruments, especially those banning torture, slavery and discriminations of all sorts.

170. In the same year (1948), the World Medical Association (WMA) stated that physicians shall practice their profession “with conscience and dignity” (WMA, 1948). A year later, the WMA stated that one of the duties of physicians in general is to “be dedicated to providing competent medical service in full technical and moral independence, with compassion and respect for human dignity” (WMA, 1949). Physicians are also asked to respect human dignity when they conduct research involving human beings. In 1964, the WMA asked of physicians “to protect the life, health, privacy, and dignity of the human subject” (WMA, 1964). In these texts we read that it is a duty of physicians to act with dignity and to respect human dignity.

171. Patients can claim that health care workers respect their dignity. WHO states that “patients have the right to be treated with dignity” (WHO, 1994, Article 5.8). Patients can also claim a right to die in dignity according to the WHO (WHO, 1994, Article 5.11). In recent years, (human) dignity is frequently appealed to when people want to express what actions and processes in the domain of medicine infringe this concept. UNESCO considers germ-line interventions as contrary to human dignity (UNESCO, 1997, Article 24).

172. Several international guidelines on bioethics regard human dignity as one of the most important principles in bioethics. One of the aims of UNESCO’s Universal Declaration on Bioethics and Human Rights is “to promote respect for human dignity and protect human rights, by ensuring respect for the life of human beings, and fundamental freedoms, consistent with international human rights law” (UNESCO, 2005, Article 2[c]). The task for the IBC is to clarify appeals to human dignity and to consider what is meant by an appeal to dignity especially in the context of a reflection on modern parenthood.

173. Based on an historical analysis (Van Der Graaf and Van Delden, 2009), four different forms of dignity can be discerned: relational, unconditional, subjective, and Kantian dignity. The different forms have at least four aspects in common. Firstly, applied to human beings the concept of dignity historically means, in a restricted sense, “the special status of man”. In the Roman period, dignity refers to the high position of officials in the republic. In several other contexts dignity is about the special place of man in the universe, above the other creatures. Secondly, dignity is based on essential human characteristics, like moral integrity, an outstanding performance, the beauty of the body, being the image of God, man’s rational nature, and autonomy. Thirdly, the bearer of dignity has to live up to this value: for the Roman politician striving for dignity is the goal in life; the medieval Christian, who receives his dignity from God, has to serve God in return; and persons in the philosophy of Kant have to esteem the dignity themselves and in others, that is they cannot use themselves and others merely as a means.

174. Fourthly, dignity can be violated. For a Roman official a mediocre performance can result in a decrease of dignity. Furthermore, throughout the ages scholars have wrestled with the idea of man’s fallen nature, which, according to some, has resulted in a loss of dignity. Not only a violation of the essential characteristics that form the basis of dignity can
infringe dignity. A lack of recognition by others can also result in a loss of dignity: a Roman politician needs the recognition of the Roman people to maintain his dignity; from a Kantian perspective persons might infringe their dignity if they use themselves or others as a means; and unconditional dignity is vulnerable as long as respect for it is not grounded in constitutions or guidelines. The four general features show that we can speak of one concept of dignity. Although people might use different terms or phrases for dignity, and might appeal to different forms of dignity, their appeals are not substantially different since they have continuously four aspects in common.

175. In international human rights documents, human dignity refers to the intrinsic value of every human being. In this context the term refers to something that is equal for all humans and does not admit any degrees. In this meaning it cannot be gained or lost. Based on this notion, all humans deserve respect, regardless of sex, age, health status, political ideas or religion. For our reflection on Modern Parenthood, the IBC will use the term human dignity in this unconditional meaning.

176. The IBC wishes to mention at least three implications of this understanding of the principle of human dignity. First, it implies that we start from the assumption that at least some universal standards can be formulated with respect to questions arising in the context of modern parenthood, since the very idea of human dignity transcends cultural diversity. Second, it implies that there is a primacy of the human being over science, since people should not be reduced to mere instruments for the benefit of science. Third, it implies that the commodification of the human body has to be rejected. In such a practice, the human person is treated merely as a means to serve someone else’s goals, which is irreconcilable with respecting human dignity.

VI.2. Reproductive autonomy

VI.3. Privacy and physical integrity

177. Privacy is a concept of great value in the appraisal of healthcare practices, policies and laws. However, there is no universally accepted definition that covers all its aspects. Definitions range from the simplest ones, such as “being let alone” to the most complex: “claim of individuals, groups or institutions to determine for themselves when, how and to what extent information about them is communicated to others” (Post, 2004, p.2122).

178. The term privacy may be used in physical, informational, proprietary and decisional senses. Physical property reflects the individuals’ freedom from contact with the others. Informational privacy refers to the right of individuals to protect their personal data. Proprietary privacy denotes the individuals’ property over their own identity. Decisional privacy involves a person’s right to decide on their own decisions that will be made on the intimate aspects that make up his/her personal life. Some philosophers believe that respecting physical, informational and decisional privacy is essential to respecting human dignity and personhood. Lawyers appreciate that the moral value of privacy is the basis of moral rights, which deserves legal protection. Therefore, privacy is a currently recognized right whose protection is a concern in Western societies.

179. In the context of parenthood, an important concept is also “family privacy” which involves the freedom of parents to decide how to raise their children, including meeting their medical and educational needs.

180. Respect for privacy is regarded as one of the most important principles by several international guidelines on bioethics, including UNESCO’s Universal Declaration on Bioethics and Human Rights. Article 9 of the UDBHR states that “The privacy of the persons concerned and the confidentiality of their personal information should be respected” (UNESCO, 2005). Respect for privacy includes different privacy interests extending from informational privacy (e.g. controlling the collection, use, and disclosure of one’s personal
information in the context of ART) to privacy in decision-making process, as well as respecting personal space and bodily integrity.

181. Article 12 of the Universal Declaration of Human Rights states that “[n]o one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honor and reputation” and that “[e]veryone has the right to the protection of the law against such interference or attacks” (UN, 1948).

182. Women’s right to privacy continues to be an issue that needs to be addressed, as a significant portion of women globally still lack measures of control to make their own personal decisions about their bodies, including reproductive choices. At the same time women ultimately bear the major physical and psychological burden of reproduction and infertility treatment.

183. Some practices in the context of ART could have a potential negative impact on the physical privacy of persons. Qualitative research studies show that women often talk about infertility treatment as an invasion of their bodily integrity and report experience of objectification (Greil, 2002); at the same time women try to actively pursue their goals and to get control over their reproductive choices. Also egg donation or surrogacy practices pose significant challenges to bodily integrity, mainly because of the necessary physical interventions, such as hormonal stimulation, anesthesia etc.

184. ART clinics must secure personal data from disclosure, misuse, loss and unauthorised access. All persons involved in the ART process, including prospective parents, gamete and embryo donors, surrogates and children born, are entitled to privacy. At the same time the right to privacy is not absolute, as some jurisdictions have legislated the disclosure of the identity of gamete donors based on a basic right to know one’s genetic heritage.

185. The “right to know” of the offspring and the anonymity of the gamete donors are issues still debated. In countries where sperm donation is anonymous, children born by sperm donation can only access nonidentifying donor information, as their parents reveal the way of conception. In the UK, for example, offsprings have the right to identify the sperm donors in order to have information about their origin after they reach the age of 18. The ethical debate about the privacy of gamete donors refers, on the one hand, to the child’s “right to know” and, on the other hand, to the donor’s and parents’ right to privacy.

186. The “right to know” concerns mainly two issues: firstly, every person has a right to live knowing the truth about his/her own origins and complete family medical history, including genetic issues, especially when this information may be useful for their medical treatment (even though this information may be provided without knowing the identity of the donor). Secondly, denying the “right to know” may harm the donor’s offspring by leading to “accidental incest” between donor’s offsprings who do not know that they share the same genetic origin. Important is also the timing when the persons learn about how they were conceived, studies showing that the later they find out the more they may feel harmed.

187. Many parents do not want to disclose this information to their children for various reasons. They might think that this as a protection of the child against negative reactions from others knowing they are the result of a medically assisted procreation procedure. Parents’ decision not to disclose the information may be based on the intention to protect themselves from the stigma of infertility leading to negative social and psychological effects. Parents may fear that disclosure will disrupt the family unity, and some authors have raised the issue of “symbolic adultery”, based on the fact that the woman receives the sperm of another man than her husband.

188. There is also the right to privacy of the donor, regarding his identity and his personal life. One possibility is to provide intended parents and the offspring with non-identifying information about the donor, such as ethnicity, education, and health information. The main concern regarding the removal of donor’s anonymity is the crisis that may arise in gamete
donation, as the research in this field recognized a decrease in the number of donors in countries where the anonymity has been removed even though, this issue may be partly solved with specific attitudes and campaignes.

VI.4. Reproductive and distributive justice

189. The concept “reproductive justice” was introduced after the United Nations International Conference on Population and Development in Cairo, Egypt (UNFPA, 1994). During this conference 179 nations committed to protect the reproductive health and rights of women. Following the conference, a network of African American women, “Women of African Descent for Reproductive Justice”, coined the term “reproductive justice”. The term was defined as “the human right to maintain personal bodily autonomy, have children, not have children, and parent the children we have in safe and sustainable communities” (Women of Color Reproductive Justice Collective, n.d.), and was introduced to point attention to the racial, social and structural inequalities affecting reproductive health, reproductive choices and parenting nationally and globally. The term also emphasizes the fact that despite recognition of reproductive rights not all persons are able to exercise those rights.

190. The United Nations International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), adopted in 1965, places an obligation on States “to prohibit and to eliminate racial discrimination in all its forms” (UN, 1965). Despite this obligation, in many regions and countries there still exist persistent racial and ethnic disparities in access to reproductive health care and reproductive rights leading to differences in infant and maternal mortality rates, birth outcomes, preterm birth rates etc. (DeFranco et al., 2015; Flanders-Stepans, 2000).

191. There are also social and structural barriers to exercising reproductive rights, e.g. lack of money, lack of available services, restrictions by family members or community to seek reproductive health care, choose a partner or to utilize ART. Many persons, especially women, possess little if any control over their bodies in respect to reproductive rights. As stated in United Nations report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health, “maternal mortality and morbidity rates reveal sharp discrepancies between men and women in their enjoyment of sexual and reproductive health rights” (UN, 2006a).

192. The provision of fertility treatment and ART requires adequate health care, socio-cultural and economic resources (van Balen and Gerrits, 2001). These may not be available in all countries. Limited budgets towards health care services in some countries imply that priority should be given to primary health care and other urgent health care needs. Consequently, fertility treatment and ART may not be easily available in countries with budgetary constraints. ART can lead to serious complications, which can be a challenge in poor resource settings due to lack of quality laboratories and sufficiently qualified paramedical personnel (van Balen and Gerrits, 2001).

193. In some countries, ART may not be legally approved or provided for in the health care system. This may lead to lack of even access to fertility treatment and ART thus leading to the search for cross border reproductive care, which may overburden the affected countries’ health care systems or expose those who are seeking these services to possible exploitation in countries that lack proper governance of ART treatment.

194. The search for cross border reproductive care raises the ethical issue of fair access (ESHRE Task Force on Ethics and Law, 2008). In situations where poor resourced countries have become lucrative sources of surrogates or gametes, resources may be diverted from basic health care needs to establish private reproductive clinics that provide services for foreigners (Donchin, 2010).

195. Preoccupation with overpopulation or population distribution can also lead to lack of attention to fertility treatment and ART since the latter would ordinarily not be prioritised in
the circumstances. This leads to the commodification of such services and an environment where those who seek the services are viewed as “customers” rather than patients (Madeira, 2015).

196. The new forms of cross border reproductive care and reproductive labour have built a global multi-billion market involving many stakeholders in certain sectors of the global economy. Feminist scholars have broadly criticized the commercialization of certain ART applications (e.g. gamete donation and surrogacy) and analysed relationship between ART and consumer culture (Franklin, 1997; Becker, 2000). At the same time, simplistic framing of reproductive labour (e.g. just in terms of personal autonomy or exploitation) should be avoided, and because of new technological developments as well as increasingly transnational dimension a new theoretical and legal framework to reproductive labour and cross border reproductive care is necessary.

197. The term “reproductive justice” has been often utilized to problematize transnational surrogacy as reproducing post-colonial relationships between North and South (Gupta, 2006). Economic and global power relations are particularly visible in the context of transnational surrogacy agreements because intended parents are almost exclusively from wealthy countries and they travel to poorer countries where surrogacy is more affordable.

VI.5. Professional responsibility

198. ART engages the responsibility of health care professionals in many respects. It is a delicate matter because it involves not only health care professionals but several types of stakeholder: the state, health insurance funds, the health facilities providing the associated services.

199. The vulnerability of the individual undergoing ART, and the involvement of other people, i.e. health professionals and non-professionals, as well as the social symbolism associated make it more delicate. Here, more than elsewhere, there is a special relationship between health professionals and “patients”. Indeed, seeking ART need a special rapport with the health professionals that is different from the one that occurs between health professionals and sick patients.

200. The introduction of a medicalized third party into the reproductive sphere imposes special interactions between professionals and laypersons. Couples and families may tend to distance themselves from medical injunctions. The expression of desire for greater autonomy is based, in some cases, on the technical competence acquired by couples. Here, more than elsewhere, the dispossession of the professionals of their specific expertise can be understood. It is therefore the responsibility of the professional to take this into account in order to encourage those seeking ART to discuss matters with the professionals. It is necessary to know how to accept this strong and real wish of autonomy of those asking for ART.

201. As in all areas, a health professional approach should be considered in a continuum leading from preventive (contraceptives, sexually transmitted diseases) through curative to palliative. However, for the subjects undergoing ART, the focus is on the “healing” of the presenting condition (and a successful outcome). It will be important that the ART health professional support the healthcare systems in working preventatively to eliminate causes of infertility and sterility on which it is possible to act. It is important that the organization of infertility-related health services is oriented along this continuum, with a focus on preventive interventions, infertility treatment, the use of reproductive technologies and to provide support where treatment fails. In other words, greater access to reproductive technologies should not be at the expense of, but concomitant with, other social and medical needs concerning natality and family planning.

202. This strong desire for autonomy by the subjects willing to undergo ART requires authorities to provide citizens with clear and precise information on the current state and likely development of practices and research in artificial reproduction. Reliable data
must therefore be collected and made available to the public. The same is true for research in this field, information about which must be reliable and regularly shared, rather than made the subject of spectacular media exposure. The health professional should avoid engaging in such practices that lead to false hopes.

203. It is the responsibility of health structures and professionals to make the reproductive journey less traumatic for women.

204. The tendency to focus the problem of infertility on women is unfortunately widely shared. Even in cases of male infertility, the clinical protocol mainly deals with the female body. It is therefore important to realize that ART is often not only really testing for the woman, but because of barriers to professional integration that are linked to it, it induces a deterioration of her social or family status.

205. Moreover, the accessibility or not of these techniques is likely to exacerbate social differentiation between women: the path through life of those socially advantaged women who are treated more as equal to men, irrespective of maternity status sometimes offers undue advantages. Professionals who invent new models of ART that make it more available help advance equality among women and contribute to narrow social gaps between women. The application of the principle of equity requires that the costs of services not be an obstacle to access to its practices. In an ideal world, the costs of services should be public and standardized. The financial aspect shouldn't be in any way an obstacle for the patients or a source of undue benefits for professionals.

206. It is also important to keep in mind that in case of treatment failure, that is to say if no child results from medical intervention, the balance sheet can paradoxically be positive.

207. The practice of human reproduction has shifted from the private family space to a public space; the hospital or health care institution has taken a prominent place; social attributes of men and women, whether homosexual, heterosexual, transgender or otherwise, are being somewhat reconfigured. This obliges us to establish new frameworks and mechanisms for practice. These mechanisms make it possible, among other benefits, to have reliable information available to the public. They also allow for authorized structures to work together, collecting, compiling, processing and publishing data. Finally, a framework allows the definition of the information necessary for an adequate and standardized description of ART practices (including description of clientele profile, practices, success rates and, on the other hand, non-nominal data on practices involving a donation of gametes etc.).

208. While ensuring quality and reliability in collecting data, the professional must ensure the high level of confidentiality is preserved.

209. Nonetheless, ART is primarily a matter of social policy that should not be equated with the mere development of quality standards of exclusively medical practice. It is logical that this social policy should not be left solely to health professionals or to other directly involved professions. On the other hand, their responsibility is to ensure professional quality of practices. Norms and standards should be established by professional medical bodies including physicians and biologists, working jointly with other professions.

210. The most important thing to remember is that the first ethical responsibility of a professional is to provide a quality of service offering optimal benefits, while reducing risks and with maximum of chance of success.

211. A final two highlights: firstly, monitoring, evaluation, accountability and mutual learning mechanisms are urgently needed and secondly, remember that assisted reproductive technologies take our fellow human beings along an already difficult path, hence joint responsibility is needed to avoid the pitfall of supervisory functions being designed and exercised with excessive bureaucratization.

VI.6. Research
212. Biomedical and social sciences research on ART, including analysis of big data, needs to be encouraged in order to gain evidence-based knowledge about the medical, legal, psychological and social consequences resulting from applications of ART.

213. Specific ethical guidelines on clinical research involving ART processes is still an underrepresented area with some exceptions. For example, in 2017, the Australian National Health and Medical Research Council released updated guidelines on the use of ART in clinical practice and research (NHMRC, 2017). The national regulatory authorities and professional organizations should fill this gap and provide extensive ethical guidelines for clinical research on ART.

214. When planning all types of research on ART involving pregnant women, embryos and foetuses in utero, excess ART embryos or human gametes, researchers must ensure that a valid informed consent is obtained, research activities are clearly separated from treatment and requirements for privacy and confidentiality are fulfilled. Research on embryos and foetuses in utero must be governed as human subject research.

215. Research on parenthood has mostly been conducted from a social sciences’ perspective by applying methodology, which may involve an intrusion into personal family life thus requiring respect for privacy and the related sensitivities. Given the sensitivity of the issues that researchers may encounter in the process of research on parenthood from a social science perspective, it is important to clarify basic principles that should guide these activities. These would be useful for refocusing researchers’ attention on the sensitivity of the topic. (Gabb, 2010)

216. The governance of social science research on ART is a challenge for a number of reasons: first, some social scientists are strongly opposed to the subjection of their research protocols to the same frameworks for ethical review as biomedical sciences. Secondly, while the ethical principles and concerns that are applied in biomedical sciences may be relevant to social science research, they tend to be applied uncritically without considering the nature of the risks that can be quite different in case of social sciences research. Thirdly, it is difficult to foresee and plan every activity in fieldwork and seek prior ethical approval thus the need to rely on reflexivity and researcher responsibility in social science research, which may not be ideal (Andanda et al., 2017). For example, researchers may be unclear, at the outset, how they will use the gathered material.

217. Particular attention should be paid to the ethical principles for publication and dissemination of the results of research on ART and parenthood, keeping in mind the sensitivity of the subject area and the possible controversies that may be triggered by these results.

VII. RECOMMENDATIONS

<to be completed>
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