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**Old Lessons for a New World:**
Applying Adoption Research and Experience to ART

by
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**Introduction**

The world of adoption has developed significant knowledge through generations of experience and research, some of which could be used to inform improved policies and practices relating to assisted reproductive technologies (“ART”). Adoption’s lessons are particularly relevant when the technology involves the use of “donor” sperm, eggs and embryos, thereby creating families in which the child is not genetically related to one or both parents. Both adoption and ART are means of creating families outside of the traditional model of a biological mother and father; both are alternatives for adults who are infertile or who do not have partners with whom they can procreate; and both raise legal, ethical and practical implications for everyone involved.

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2 Just as there are questions about the use of some words in the adoption world (such as “birthmother”), some terms in ART also raise issues. Specifically, men and women who provide their gametes for use by others in assisted reproduction are typically called “donors,” suggesting that they – like organ donors – do not receive compensation. In reality, most sperm and egg providers are paid for their reproductive cells and their time. See, e.g., RENE ALMELING, SEX CELLS: THE MEDICAL MARKET IN EGGS AND SPERM (forthcoming 2011). Nevertheless, since the word “donor” is commonly used in ART and in public discussion, for clarity it is also sometimes used in this article.
ART encompasses a range of fertility treatments – from the placement of fertilized human eggs from the gametes of the intended parents into the mother’s uterus (in vitro fertilization/IVF) to sperm/egg (gamete) and embryo donations to surrogacy.\(^3\) ART has a much shorter history than adoption and, as a result, it has not benefitted from as many opportunities to learn about its impact on children, gamete providers and intended parents. While sperm donation has been practiced for more than a century,\(^4\) successful IVF (with the egg and sperm of the intended parents) only began with the 1978 birth of Louise Brown, the first child thus conceived. More recent approaches using IVF technology, such as egg\(^5\) and embryo\(^6\) donation, result in children

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\(^3\) According to the Centers for Disease Control and Prevention, “Although various definitions have been used for ART, the definition used by CDC is based on the 1992 law [Fertility Clinic Success Rate and Certification Act] that requires CDC to publish this report [ART Success Rates National Summary and Fertility Clinic Report]. According to this definition, ART includes all fertility treatments in which both eggs and sperm are handled. In general, ART procedures involve surgically removing eggs from a woman’s ovaries, combining them with sperm in the laboratory, and returning them to the woman’s body or donating them to another woman.” CENTERS FOR DISEASE CONTROL & PREVENTION, 2008 ASSISTED REPRODUCTIVE TECHNOLOGY SUCCESS RATES, at 3 (Dec. 2010), available at http://cdc.gov/art/ART2008/PDF/ART_2008_Full.pdf. While the CDC does not include artificial insemination (or “alternative” insemination), this article will do so. See Courtney G. Joslin, Protecting Children (?): Marriage, Gender, and Assisted Reproductive Technology, 83 S. CAL. L. REV. 1177, 1179 n.3 (2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1695559.

\(^4\) Artificial insemination of humans and animals was practiced in Europe since the early part of the nineteenth century, but the first insemination using donor sperm was recorded in the United States in 1884. See Eric Blyth, Secrets and Lies: Barriers to the Exchange of Genetic Origins Information Following Donor Assisted Conception, 23 ADOPTION & FOSTERING 49, 49 (1999).

\(^5\) In egg (or oocyte) donation, eggs are removed from a donor, fertilized in vitro and implanted in the intended mother, who is not genetically linked to the child. Though the intended father is often genetically related to the child because his sperm is used, less commonly the donated egg is fertilized with donated sperm, in which case neither intended parent is genetically linked to the child. Existing embryos conceived with a donor’s egg also may be implanted into a surrogate, who becomes the gestational mother. This method (called gestational or carrier surrogacy) – in which the woman carries a fetus with no genetic relationship to her – differs from the traditional form, in which the surrogate contributes her egg for insemination with sperm from the male partner of the intended parents. See TECHNOLOGY AND INFERTILITY: CLINICAL,
with no genetic connections to one or both of the intended parents, thereby establishing closer parallels to adoption than did earlier ART processes.

The world of adoption, informed by generations of experience and research, offers a body of knowledge that can be useful in the development of ART policy and practice. Adoption itself has evolved, and is continuing to do so, since more has been learned about its implications for the adopted person, birth family and adoptive family. Most pointedly, some adoption processes that once were embraced as positive have, with experience, been found to work against the best interests of children and families, and evidence-informed practices have taken – and continue to take – their place. The secrecy that characterized adoption’s past hindered the application of its lessons to other realms; as it has emerged from the shadows, however (particularly in relation to increased information sharing and greater openness among those it affects), adoption now can provide an opportunity to gain a deeper understanding of its lessons and, potentially, to broaden the application of these lessons to other means of family formation.

For instance, over the last several decades, adoption has explicitly focused primarily on “the best interests of the child,” a concept that has become its guiding legal and practice principle, while reproductive technology typically continues to place the needs and desires of the intended parents at its core. Similarly, over the past decade, increasing attention has been focused on the market forces in adoption that can impact the ethical professional provision of services – a discussion that has not received


6 Embryo donation involves the implantation into an intended mother of a pre-existing frozen embryo created from another’s IVF attempts and donated – usually anonymously – by these individuals. In such cases, the resulting child is not genetically linked to the intended parents. As in egg donation, the intended mother may be the gestational mother or may be a surrogate. There are more than 400,000 frozen embryos in storage in the United States, a small percentage of which are currently available for transplantation because most intended parents have completed their treatments and few wish to donate the embryos to other couples. See Sarah Lawsky & Naomi Cahn, Embryo Exchanges and Adoption Tax Credits, 123 TAX NOTES 1365, 1366 (2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1394046.
the same consideration related to ART. Adoption practice also has evolved to a point where education about adoptive families, counseling relating to non-genetic relationships, and other support services are generally considered integral components of good practice, whereas such practices in ART are in their infancy.

Abuses and dubious practices certainly take place in adoption, but it is governed by international treaties, federal and state laws and regulations, and mandatory licensing requirements; agencies and attorneys therefore are subject to legal and regulatory sanctions, as well as lawsuits by clients. ART is regulated much less and in a more patchwork way: physicians must be licensed (state laws), fertility clinics must report success rates, and gametes must be tested for safety (federal law on testing for HIV and other infectious diseases and examining medical records for risk factors). Some states have more extensive regulations than others, however, and there are none on some aspects of practice; for instance, there are no legal limits on how many times an individual can provide gametes, so that a single sperm donor may father hundreds of children.7

Adoption history – good and bad – offers a rich body of knowledge that could strengthen ART policy and practice to the benefit of the gamete providers, the intended parents, and most pointedly, the children who are conceived. This article examines how adoption’s lessons can be applied to the world of donor sperm, eggs and embryos. It provides an overview of the issues at the intersection of adoption and assisted reproductive technology, and explores how best practices and policies in adoption can provide relevant information for the development of comparable procedures in ART. These lessons could help ART progress from its current state – in which it is achieving the medically possible – to providing research-informed practices that focus more attention on the long-term medical, psychological and social needs of those it serves.

This article addresses issues that are common to family formation through adoption and ART – i.e., practices related to information disclosure, who is the focus of the services, the extent

I. The Facts About ART

The use of assisted reproduction technologies has grown dramatically over the past decade, with the number of infants born as a result of ART (not including births from sperm transfers) more than doubling from 20,840 in 1996 to over 57,000 in 2007. In 2007, the most recent year for which data are available, there were more than 18,000 cases of donor egg transfers, resulting in the birth of more than 6,000 babies.8 There is no comparable government record-keeping for births using provided sperm;9 estimates of the number of these children born each year range from 30,000 to 60,000. While no official figures exist on the number of surrogacy births each year, some experts estimate up to 1,000 babies were born in this way in 2007.10

There are no comprehensive, current statistics for the number of adoptions. In 2002, according to U.S. Department of Health and Human Services data, 53,000 children were placed for adoption by public agency involvement and 58,000 by private agencies.11 In 2001, the number of international adoptions was estimated at 19,237.12 The number of domestic infant adoptions

8 See CENTERS FOR DISEASE CONTROL & PREVENTION, supra note 3, at 91.
9 Some women may self-inseminate with donor sperm; and while many women use physicians, doctors who perform such inseminations are not required to report this information.
12 Id. at 496. Most international adoptions are finalized in the child’s country of birth rather than in U.S. courts, so only in those cases where parents
has been estimated at around 14,000 a year,\footnote{See \textit{Joyce A. Martin, Brady E. Hamilton, Fay Menacker, Paul D. Sutton, \\ & T.J. Mathews, Centers for Disease Control, Preliminary Births for 2004 (2004), \textit{available at} \url{http://www.cdc.gov/nchs/data/hestat/prelimbirths04/prelimbirths04health.htm}.} although some believe the number is higher. For the reasons noted, the number of specific kinds of adoptions do not add up to the number of NCSC court-recorded adoptions in this country.\footnote{See, e.g., \textit{Centers for Disease Control \\ & Prevention}, \textit{supra} note 3.}

Growing numbers of individuals have sought medical treatment for infertility over the past 25 years.\footnote{Cohen \\ & Chen, \textit{supra}, note 11, at 489-91, 537.} According to the National Survey of Family Growth,\footnote{Anjani Chandra, Gladys M. Martinez, William D. Mosher, et al., \textit{Fertility, Family Planning, and Reproductive Health of U.S. Women: Data from the 2002 National Survey of Family Growth, 23 Vital \\ & Health Statistics 25, 136 (2005), \textit{available at} \url{http://www.cdc.gov/nchs/data/series/sr_23/sr23_025.pdf}.} by their early 40s, 19 percent of women have used some sort of infertility service (including advice), 2.6 percent have had artificial insemination, and 0.7 percent have used another form of ART. Approximately one-quarter (26 percent) of women who have not given birth and have used infertility services have adopted a child by ages 40-44.\footnote{Jo Jones, \textit{Adoption Experiences of Women and Men and Demand for Children to Adopt by Women 18–44 Years of Age in the United States, 2002, 23 Vital \\ & Health Statistics 27, 21 (2008), \textit{available at} \url{http://www.cdc.gov/nchs/data/series/sr_23/sr23_027.pdf}.}

\section*{II. The Issues}

Four primary legal, policy, and practice issues confront both ART and adoption – issues that adoption researchers, practitioners and policymakers have studied, debated and addressed for longer than some types of assisted reproduction have existed: first a shift from a climate of secrecy and withholding of information to one of greater transparency and the open sharing of information among the affected parties; second, an understanding of which parties are the chief beneficiaries of the service provided and when, with particular attention to the implications for children and the availability of services to a diverse range of clients; complete a re-adoption in a U.S. court do international adoptions count in U.S. court statistics.

\begin{itemize}
\item \footnote{See \textit{Joyce A. Martin, Brady E. Hamilton, Fay Menacker, Paul D. Sutton, \\ & T.J. Mathews, Centers for Disease Control, Preliminary Births for 2004 (2004), \textit{available at} \url{http://www.cdc.gov/nchs/data/hestat/prelimbirths04/prelimbirths04health.htm}.}
\item \footnote{See, e.g., \textit{Centers for Disease Control \\ & Prevention}, \textit{supra} note 3.}
\item \footnote{Cohen \\ & Chen, \textit{supra}, note 11, at 489-91, 537.}
\item \footnote{Jo Jones, \textit{Adoption Experiences of Women and Men and Demand for Children to Adopt by Women 18–44 Years of Age in the United States, 2002, 23 Vital \\ & Health Statistics 27, 21 (2008), \textit{available at} \url{http://www.cdc.gov/nchs/data/series/sr_23/sr23_027.pdf}.}
\end{itemize}
third, heightened attention to the market forces that affect both types of family formation and that can impact the ethical professional provision of services; and fourth, the need for clear legal regulation that sets parameters for the provision of the services involved and that enhances accountability.

The focus in this discussion is primarily on ART, drawing from adoption’s relevant lessons and with analysis of comparable issues in adoption.

A. Openness and Secrecy, Anonymity and Information Access

There is a continuum of information-sharing (or lack thereof) among the affected parties in both adoption and ART, ranging from total secrecy to full disclosure. The types of information involved fall into three basic categories: a person’s status as adoptee or donor offspring (as a child and into adulthood), non-identifying information such as medical and social history, and identifying information on birthparents or gamete providers that directly reveals their identities or indirectly can lead to such identification.

1. The Prevailing Model

Until relatively recently, legal and policy frameworks reflected a prevailing assumption that children conceived through ART “would not benefit from having access to information about their genetic origins,” and parents often did not even tell children that they were donor conceived.18 The vast majority of “donations” are anonymous; ART practitioners may not counsel parents to disclose this information, many parents report uncer-

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tainty about how to share it, and the extent to which background information is maintained and available varies greatly from clinic to clinic.19 Terry Sforza estimates that “some 100,000 children have been born of donor eggs in America since 1984” but “the vast majority apparently don’t know it.”20

Many experts in the ART field, however, are advocating for broader information disclosure, including the American Society for Reproductive Medicine (“ASRM”), which encourages parents to tell their children about gamete donation.21 Current practices in the donor world with respect to disclosure, as well as current efforts to advocate for more extensive disclosure, are beginning to benefit from ongoing research and analysis.22

Adoption policies and practices related to secrecy have changed dramatically over the past several decades, with information about children’s birthparents now routinely shared with prospective adoptive parents – and vice-versa. In the early part of the twentieth century, information about family origins was minimal at best, since it was rarely recorded and, to the extent that it existed, it was often inaccurate.23 Beginning in the 1950s, more background was collected, but disclosure tended to be selective, with only positive information generally shared with prospective parents.24 Today, it is widely considered as best practice to capture as much information as possible and to make non-identifying portions – health, social and other data about birthparents and the child’s history – available to both adoptive parents and adult adoptees.25

20 Sforza, supra note 19.
22 Susan Golombok, Anonymity - or Not - in Donation of Gametes and Embryos, in INDIVIDUAL FREEDOM, AUTONOMY AND THE STATE (Oxford, E. Jackson, et al. eds., 2009); Freeman et al., supra note 18, at 11.
24 Id.
25 Id.
Laws about access to original birth certificates by adult adopted persons also have evolved in response to an adoption reform movement throughout the English-speaking world.\footnote{See E. Wayne Carp, Does Opening Adoption Records Have an Adverse Social Impact? Some Lessons from the U.S., Great Britain, and Australia, 1953–2007, 10 Adoption Q. 29, 30 (2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1475785.} Adult adoptee access to these documents, which contain the names of birthparents, has been a hotly debated issue in the U.S. even as the trend has moved toward greater disclosure. At the policy level, this debate has played out in a growing number of states where bills have been introduced to “unseal” original birth certificates; currently, eight states provide access to them for adult adoptees, while many others do so in more limited ways – but the trend toward more disclosure, both retrospectively and prospectively, is growing.\footnote{Susan S. Smith, Evan B. Donaldson Adoption Institute, Safeguarding the Rights and Well-Being of Birthparents in the Adoption Process, 8 (2006), available at http://www.adoptioninstitute.org/publications/2006BirthparentStudyrevised07.pdf.} The international arena has witnessed increasing legislation and advocacy on this front, with laws passed in Scotland, England, Australia and some Canadian provinces to provide adult adoptees with access to their original birth certificates.\footnote{Carp, supra note 26, at 30, 38, 44.}

2. Information Disclosure in ART

The practice of complete secrecy in assisted reproduction has changed, at least with respect to the collection of non-identifying information. In the late 1980s, the spread of AIDS – and resulting federal recommendations that all donor inseminations use frozen, quarantined semen – precipitated several changes in information-sharing procedures. Clinics began to collect fuller histories from sperm providers, to disclose this information to recipients, and to maintain more extensive records.\footnote{See Jean Benward & Adrienne Asch, A Case for Cross-Fertilization: Adoption and the Reproductive Technologies, presentation at the Evan B. Donaldson Adoption Institute Conference, Ethics and Adoption: Challenges for Today and the Future, Anaheim, CA (Nov. 5, 1999), available at http://www.adoptioninstitute.org/proed/confessions/transtest14.html#A.}

Sperm banks now not only collect fairly comprehensive information from
providers, but may also maintain records on them; some offer photos and videotapes of them for recipients to review; and there is growing support for providing identifying information on donors to offspring. Sperm banks also increasingly allow their clients to choose either identified or anonymous donors. Providers have no obligation, however, to update their records regarding medical or other important information that could affect their offspring in the future.

In contrast to the long-standing practice of anonymity for sperm donors, egg donation began almost exclusively with known providers. As new technologies decreased the risks associated with the process, however, anonymity became more common and, today, most egg programs use only anonymous providers. Much as was the case in adoption throughout the 1950s and 1960s, when social workers matched adoptive parents and children without any involvement by birthparents, in ART doctors or nurses traditionally made the match between recipients and donors. This practice is changing, with recipients having increased autonomy and control in the selection of egg providers; indeed, recipients can now access enormous amounts of information about them. Nonetheless, it continues to be general practice that egg providers are not given information on recipients and the two parties do not meet, although recipients may see pictures of the donors. It is difficult for providers to update health information that could be important to the children conceived with their eggs. Nonetheless, the need to know about

31 CAHN, supra note 30, at 121.
32 Id. at 117.
34 For further exploration of the processes involved in egg and sperm donation and interviews of participants, see Rene Almeling, Selling Genes, Selling Gender: Egg Agencies, Sperm Banks, and the Medical Market in Genetic Material, 72 AM. SOC. REV. 319 (2007).
36 PLOTZ, supra note 30, at 173, 178.
family health history is one reason cited widely in the adoption field for broader disclosure.

Much more needs to be understood about the reasons families choose not to disclose how their offspring were conceived – but, as with adopted people, it appears that a growing number of donor-conceived individuals want to know more about their origins.\footnote{J.E. Scheib, M. Riordan, & S. Rubin, Adolescents with Open-Identity Sperm Donors: Reports from 12-17 Year Olds, 20 HUMAN REPROD. 239, 239 (2005), available at http://humrep.oxfordjournals.org/content/20/1/239.full.} For example, the Donor Sibling Registry, a non-profit organization, operates a voluntary mutual-consent, internet-based registry for matching offspring and donors.\footnote{The Donor Sibling Registry, http://www.donorsiblingregistry.com/ (last visited Feb, 10, 2011).} More than 22,000 donors, parents, and children have signed up since the registry began in 2000, and more than 8,000 half-siblings and/or donors have been connected through it,\footnote{Id.} indicating a significant desire for contact for families already formed through gamete donation. We also know anecdotally and through media stories that a rising number of donor-sperm offspring are searching for – and finding – their biological fathers, both to gain medical/biological information and to meet them. However, no state laws mandate the disclosure of identifying information on gamete providers or facilitate contact.

Policymakers, ART professionals, and intended parents could profit from the lessons those working in adoption have learned about the medical, psychological, and social benefits of knowing more about one’s background. While many activists within the donor movement make this point in arguing for greater openness and disclosure, not all professionals are convinced. Moreover, there are issues related to parent education about disclosure (reasons for disclosure, counseling related to how this is handled, and other services for families), a topic that is becoming the subject of increasing study in both adoption and ART.\footnote{See, e.g., V. Jadva, T. Freeman, S. Golombok, & W. Kramer, Searching for Donor Relationships: The Experiences of Donor Conception Offspring, Parents, and Donors, 88 FERTILITY & STERILITY S250 (2007); Chris Jones & Simon Hackett, Communicative Openness Within Adoptive Families: Adoptive Parents’}
Greater disclosure would yield important benefits in gamete donation beyond providing information to offspring. Unlike in adoption, through ART, a single man is capable of providing sperm for numerous children. The disclosure of identifying information would provide safeguards against half-siblings, unaware of their biological relationship, engaging in accidental incest (sometimes called inadvertent consanguinity) by having sexual relations or even marrying each other.42 It would also yield data needed to limit the number of children created through one person’s donations; in England, for instance, a sperm donor can provide gametes to no more than ten families. 43

The American Society for Reproductive Medicine has developed best practice guidelines for professionals involved in assisted reproduction, including recommended (but non-binding) recommendations on the numbers of potential donations.44 Whatever the U.S. might ultimately decide, it seems reasonable that the subject should be discussed and policy should be set rather than allowing “anything goes” to be the rule.

As with adoption, issues related to sharing or withholding of information in ART arise in several contexts. Since professional organizations and social workers involved in ART recommend disclosure to recipients, providers and offspring, adoption can offer legal models, knowledge about the health, psychological and social issues to be considered, and tested practices relating to how, when and to whom information is disclosed.
B. Who Is the Focus of the Service?

1. Birth Parents, Gamete Donors, and Children

Examining the parties served through adoption and assisted reproduction necessarily raises the question of who is the primary client for each service. Adoption is generally perceived as a social process that places importance on the parents’ wishes but, first and foremost, one that should benefit the child. ART, by contrast, usually has been defined as a medical process that addresses solely the needs of infertile adults, with the primary client in egg, sperm and embryo transfers being the gamete recipients. To some extent, these different emphases stem from the reality that in adoption, a child or pregnancy already exists, while in assisted reproduction, they do not, and services are provided prior to conception. Nevertheless, adoption’s child-centered focus offers valuable guidance in thinking through the parenting, counseling and disclosure issues in ART.

Balancing the needs and interests of all parties in the adoption process is an ongoing challenge for practitioners and policymakers. Engaging in unethical practices or ignoring the rights of one party can lead to harmful consequences to every participant, as when a pregnant woman is coerced into making a decision to relinquish her child for adoption. It is not always clear how birthparents or donors are considered in terms of “client” status, especially when the prospective parents pay all expenses, including for any medical, psychological or legal services, as well as for material supports to donors or birthparents. This financial arrangement can present a conflict of interest for service providers and can confuse the issue of whose best interests are being considered. There has been growing attention to this issue in adoption as birthparents have gained stronger voices and as their rights have been more widely recognized. The status of gamete providers as “clients” remains less clear.

There are obviously significant differences in the experiences and interests of pregnant women and gamete donors. In adoption, prospective birthmothers may be relatives, friends, or strangers to the prospective parents; similarly, donors may be either related or unrelated to recipients and either known (or identified) or anonymous. Unlike birthparents, for whom expenses such as medical bills can be covered, gamete providers can be
explicitly paid for their “donations.” But the body of research on birthparents is substantial, while little research exists on the participants in ART – so the understanding of their experiences is limited. Studies on birthparent experiences have tended to focus on women who voluntarily place their children for adoption – as opposed to birthfathers of infants or parents whose parental rights were involuntarily terminated. This research has provided important information on the social and psychological impact of relinquishment on the women involved and, consequently, has informed adoption practice and professional training. Far less is known about the long-term implications of being a donor, so there clearly needs to be more research and analysis to ensure that the needs and rights of all parties are respected.

2. Availability of Services to Diverse Clients

Another aspect related to the focus of services is their availability to a diverse clientele. Can single individuals, working class Americans, and gay or lesbian individuals or couples readily utilize ART services?

Accessibility of services in ART and adoption involves a range of issues, including economic considerations; concerns re-


48 Wiley, supra note 46, at 35; Benward & Asch, supra note 27, at 51.

49 North Coast Women’s Care Med. Group v. San Diego Cty. Sup. Ct., 189 P.3d 959, 963 (Cal. 2008); see Sumeet Ajmani, North Coast Women’s Care: California’s Still-Undefined Standard for Protecting Religious Freedom, 97 Cal. L. Rev. 1867 (2009) (“In a landmark ruling, the California Supreme Court recently held that clinic physicians may not deny lesbians access to fertility treatment on the grounds that the procedure violated the physicians’ religious beliefs.”), available at http://www.californialawreview.org/assets/pdfs/97-6/9AjmaniFINAL.pdf.
lated to stigma, equity and discrimination; and the manner in which services are delivered. The social work and other counseling-related professions have a substantial body of knowledge on practice with diverse populations, including techniques for delivering culturally sensitive services, programmatic strategies that facilitate client access and retention, and addressing discrimination in agency policies and state laws. Adoption professionals have addressed these issues (for decades) as well; and ART professionals have begun to recognize them as well.

Adoption is a legal means for creating “families by choice” – including by single adults, whether they are gay or straight – and the same is true for assisted reproduction. But who can adopt is a question of state law; currently, adoption by gay or lesbian individuals is legal in forty-nine states, although there are


52 Harold D. Grotevant, Openness in Adoption: Re-thinking “Family” in the U.S., in Reproductive Disruptions: Gender, Technology, and Biopolitics in the New Millennium 137 (Marcia C. Inhorn ed. 2007).

53 Many of the issues raised by families formed by single individuals and by gay and lesbian individuals or couples are different, and we do not mean to suggest otherwise. Nonetheless, these are families formed outside of the heterosexual, married couple that has traditionally been postulated as the “appropriate environment” in which to raise a child. Adam Pertman, Adoption Nation: How the Adoption Revolution Is Transforming America (2000).
some restrictions in a few other states, such as prohibiting adoption by unmarried, cohabitating couples. Access to ART depends on the policies of individual clinics. In both contexts, practices run the gamut; that is, there are adoption agencies that are increasingly welcoming of single, gay and lesbian parents, and others that limit adoption to individuals who are heterosexual and/or are married; and there are clinics that accept a wide variety of clients and others that provide services only to heterosexual couples. A recently published survey of fertility clinics found that 50 percent were likely to turn away a man who does not have a wife or partner, 20 percent would not accept a single woman, 17 percent would not provide services to a lesbian couple, and 5 percent would reject a biracial couple.

Assuming that a single, gay or lesbian individual or couple is able to access fertility services, not all states provide legal avenues to establish the parental rights of adults to the children of their unmarried partners; in the states that do not, gay or lesbian partners have less security in their legal rights as parents. A growing number of states have enacted civil union or domestic partnership statutes, which grant registered couples substantially the same rights as if they were married, and five states (Connecticut, Iowa, Massachusetts, New Hampshire and Vermont) and the District of Columbia now allow same-sex couples to marry. Questions remain, however, about parental rights when couples in same-sex marriages, civil unions or domestic partnerships move outside of the state that legalized their relationship.

Some states do not recognize the reality that assisted reproduction occurs outside of marriage, and that gay, lesbian and single parents use these services. In Oklahoma, for example, only doctors can perform insemination, and their patients are limited to married couples; the child is considered the same as a “naturally conceived legitimate child of the husband and wife.”

There is still considerable progress to be made in making ART services accessible to working class clients, to single individuals; and to gay or lesbian clients. While the adoption field has a longer history of addressing these issues in the adoption field and

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54 CAHN, supra note 30.
55 PERTMAN, supra note 51.
56 CAHN, supra note 30, at 108.
more protection exists in state laws against discrimination in adoption services, these concerns continue to require attention by adoption professionals as well.

C. “Market” Regulation

Julia Derek, who sold her eggs eleven times, writes about being attracted to becoming an egg donor by the significant payments created by the supply and demand market; however, she subsequently realized she had given little or no thought to the potential impact on her years later.58 Had she instead been a pregnant woman placing a baby through a competent adoption agency, she would have received counseling about such things as the mixed emotions she might experience in the future, the questions she might have about the child she helped to create, or the desires she might have to know about or even meet that child. She also probably would have received specific knowledge about the family raising the child.

Basic market forces influence the professional providers of adoption and ART, the processes themselves and all parties involved. There is therefore a need for regulation to safeguard participants’ rights and to deter unethical practices. The costs associated with both donor ART and adoption (aside from donor sperm and foster care) are considerable – often tens of thousands of dollars – so most people who access either service have significant resources. Meanwhile, gamete providers (but not embryo donors) and women who place their children for adoption typically possess far fewer financial or other resources, resulting in what is often described as a “power imbalance” that can influence the services provided.59 Those seeking donor insemination or adoption services usually pay the bills for service providers

58 JULIA DEREK, CONFESSIONS OF A SERIAL EGG DONOR 8 (2004). She reports that when she first decided to sell her eggs, she thought: “All that couple would ever get from me was an egg – a cell. It was kind of like giving someone one of my hairs. Then, later, that hair would become a child to whom I would merely be the biological mother. . . . Heck, I didn’t even have it in my stomach for nine months, so how could I ever consider it mine? In other words, all I would sell would be a tiny, tiny cell containing my genes.” Id. Not once during did she receive counseling about the meaning of doing so or any long-term implications.

and donors/birthmothers, for example, and they may specify their expectations regarding the age, health, ethnicity, and other characteristics of the children they wish to parent – and those realities presumably can affect motivations, policies and practices.

Adoption is not an industry in which babies can be legally sold, but one in which prospective parents pay fees to practitioners (usually agencies or attorneys), intended to cover the costs involved in the process, such as home studies, counseling and legal services. Total expenditures to adopt an infant domestically or a child from abroad vary greatly, from as low as $5,000 to $50,000 or more. Adoption from foster care is the exception; any fees are typically reimbursed and sometimes subsidies are provided.

In many cases, pre-adoptive parents also cover prospective birthmothers’ expenses during pregnancy and after delivery. When a pregnant woman’s expenses are paid, they cannot legally be contingent on her relinquishing her baby. It is legal, however, for prospective parents to pay for medical care and, in some cases, for her living and travel expenses during pregnancy.60 These laws vary significantly around the country. Some states define the expenses that may be paid;61 others refer generally to “reasonable and necessary expenses”;62 and yet others have broader rules that allow for payment of the biological mother’s medical and living expenses as well as services such as counseling and attorney fees.63

Inconsistencies in the language and enforcement of state laws on payment of adoption expenses may leave open questions about whether individual cases cross the line between legal reimbursement of expenses and dubious transactions that could be construed as coercive or even as payment for a child. But the principled authority of the state governments to regulate the payment of adoption-related expenses is well-established and the “reasonable fees” standard has been judicially interpreted and professionally debated. In contrast, payments relating to ART

are largely unregulated, providing yet another context where assisted reproduction might benefit from adoption’s experience. Moreover, ethical and moral issues warrant discussion; for instance, in both realms, prospective parents may pay amounts significantly greater than average in order to choose children with specific characteristics.

Money is an issue with ART at two levels even before the baby arrives: the overall costs intended parents pay to service providers and the fees paid to gamete providers. While state laws typically regulate which birthparent expenses prospective adoptive parents can pay, they rarely address compensation for gamete providers. Payment for sperm and eggs is legal in most of the United States, with an explicit ban in place only in Louisiana. The ABA’s 2008 Model Code Governing Assisted Reproduction provides that compensation must be “reasonable” and not conditioned on “purported quality or genome-related traits” or “actual genotypic or phenotypic characteristics.” ASRM makes nonbinding recommendations on levels of payments to donors. Individuals are often paid well for their “donations,” with considerably lower amounts going to men (the average payment for sperm in 2000 was $60-70 per donation) than to women (payments for eggs range from about $3,500-$50,000), partly because the process for women is far more complex and invasive.

Donor sperm, eggs, and embryos are “sold” and represent part of a multibillion-dollar assisted-reproduction industry in the United States. Charges for basic in vitro fertilization begin at around $5,000. Donor sperm may cost a few hundred dollars, with intra-uterine insemination adding $2,000 to $3,000 more, but cycles involving donor eggs and embryos may cost $10,000 or more. Fewer than one-third of all states require that insurance cover any infertility services. The infertility community is en-

64 American Society for Reproductive Medicine Financial Compensation, supra note 44; American Society for Reproductive Medicine Guidelines, supra note 44; American Society for Reproductive Medicine Informing Offspring, supra note 44. A lawsuit was filed against ASRM alleging antitrust violations. See, The Market in Human Eggs: Underpaid Ovaries, The Economist, 32 (4/23/11).


66 Jessica Arons, Center for American Progress, Future Choices: Assisted Reproductive Technologies and the Law 8 (2007),
gaged in considerable debate about the exchange of money for gametes in assisted reproduction. Some argue that such payments do not necessarily translate into a negative practice, while others contend that they amount to “commodification” and that payment for human eggs and sperm is immoral, unethical and psychologically demoralizing.

Regulations relating to embryo donation and surrogacy – which stand at the intersection of assisted reproductive technology and adoption – vary from state to state. Louisiana law provides that “[i]f the in vitro fertilization patients renounce, by notarial act, their parental rights for in utero implantation, then the in vitro fertilized human ovum shall be available for adoptive implantation in accordance with written procedures of the facility where it is housed or stored.” Nationally, several private organizations, including some “traditional” adoption agencies, arrange for embryo “adoption” – rather than sale – in a system comparable to traditional adoption, complete with the screening of prospective parents and home studies. Most pointedly for the purpose of this analysis, embryo “adoptions” entail substantial costs. A “Snowflake Adoption” – one organization’s approach to providing individuals with an embryo that has been created from the egg and sperm of others – requires thousands of dollars in fees because the organization charges a program fee and requires home studies for parental applicants. Serious questions arise whether this “adoption” approach is suitable for gamete transactions: not only is there no guarantee that a child will result from an embryo transfer, but also the concept of gamete “adoptions” treats them as equivalent to a child.


69 Snowflake estimates that families pay $12,000 to $14,000 in program, home study, and medical fees. Nightlight Christian Adoptions, http://www.nightlight.org/snowflakefaqsap.htm (last visited Feb. 4, 2011).
The issues relating to money in assisted reproduction also include compensation to surrogates. Fees for the women who carry and deliver babies for others typically range from $8,000 to $15,000, but can run much higher. The acceptability of paid surrogacy is itself hotly debated. No uniformity exists among the states on surrogacy, with a few banning the practice entirely, others enacting laws governing it, and some allowing courts to decide the enforceability of surrogacy contracts on a case-by-case basis.

The gamete market in the United States operates differently than its counterparts in most of the world. In some of Europe, most of Latin America, and many Muslim nations, egg donation is prohibited, and in some countries, fees associated with sperm and egg donation are strictly regulated. In some countries, however, there is less regulation than in the United States; indeed, a fertility tourism industry has developed, in which prospective parents travel abroad for the hiring of surrogates and other procedures. For instance, “reproductive outsourcing” is booming in India.

The ethical dilemma for adoption and ART with respect to payment is quite similar: Is a pregnant woman paid for expenses so she can make the decision of whether to relinquish her baby, or with the expectation that she will do so? Is the donor compensated for her time and the medical procedures she undergoes, or is she paid for a potential baby? The question then becomes how much should be paid and for what services. A steady rise in adoption fees, discrepancies found in the processes of placing children of different races and ethnicities, and the willingness of some families to pay higher fees to adopt children who physically resemble them or have “desirable” qualities further suggest that from a market perspective, infant adoption and assisted reproduction have significant parallels to one another in this regard.

Neither pre-adoptive parents nor infertility patients view their prospective children as products; in constructing the financial aspects of adoption and donor insemination services, how-

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70 International Federation of Fertility Societies, Donation, 87 FERTILITY & STERILITY S28 (2007); Mead, supra note 35.
ever, the systems that serve them have been the subject of criticism about commercialization. Increasing fees in adoption (particularly for infants domestically and for children from abroad) have precipitated concerns related to the commodification of children, just as higher fees to donors with specific characteristics in ART have been criticized as contributing to the commodification of gametes and to the transformation of babies into products that doctors “manufacture.” These practices also have raised concerns about the impact of high fees on the decisions made by birthparents and donors with limited financial resources. Much more needs to be understood regarding the socioeconomic backgrounds and needs of donors and the extent to which economic issues play a role in decision-making in gamete donation and affect longer-term psychological outcomes for them; for instance, should gamete providers get more education/information before giving informed consent? Should they have the opportunity to receive pre- or post-donation counseling? And how should those costs be absorbed?

III. Legal Regulation

Adoption from the foster care system is subject to both state and federal laws, infant adoption is regulated by state laws, and international adoption is regulated by treaty as well as by federal and state laws – and most of these statutes center on the best interests of the child (as well as the fitness of the parents). Courts are necessarily involved in finalizing all adoptions, and clear legal rules dictate the respective rights and responsibilities of the biological and adoptive parents. Furthermore, some states explicitly recognize post-adoption contact agreements, delineating levels of contact between the child’s original and new families.

Adoption services are provided within a coherent, long-standing legal and regulatory structure, and some oversight mechanisms are in place. Agencies must be licensed by state authorities; attorneys must be members of the state bar or subject to disciplinary bodies that oversee professional practice; and courts have ultimate oversight in finalizing adoptions. Although relevant laws vary widely from state to state – and there is ongoing debate about whether there are sufficient laws, rules or monitoring – some aspects of adoption are consistently regulated,
such as the requirement that adoptive parents have approved home studies.\textsuperscript{72}

One federal statute regulates ART specifically, the Fertility Clinic Success Rate and Certification Act of 1992; its purposes are to give consumers reliable and useful information about fertility clinic success rates, and to provide states with a voluntary model embryo laboratory certification process.\textsuperscript{73} As part of the more general requirements applicable to use of human tissue, gametes are subject to certain limited tests for safety.\textsuperscript{74} State regulation is piecemeal and, to the extent it exists, has evolved slowly through case law and issue-specific provisions in reaction to emerging issues, such as insurance.

Among the issues not regulated are limits on the number of times one person can provide sperm or eggs and how many embryos can be implanted in one woman, raising concerns both about the resulting genetic half-siblings and the health and welfare of children who are among the increasing number of ART-related multiple births.\textsuperscript{75} There also is no regulation of contracts between gamete donors, banks, and recipients and screening of parents (age, health, parenting capacity). ASRM has non-binding recommendations on the number of embryos that should be transferred at one time, depending on the age of the patient.\textsuperscript{76}

\textsuperscript{72}\textit{Hollinger}, \textit{supra} note 60.


\textsuperscript{74} 21 C.F.R. § 1271.80 (2010) (regulating testing of donors).


The rights of adults who become parents through assisted reproduction differ from state to state.\textsuperscript{77} The advent of donor insemination precipitated the need to define legal fatherhood outside of biology or adoption. When initially faced with determining paternity when a wife had been inseminated with donor sperm, some courts opted to treat the child as “illegitimate,” while others deemed the woman’s husband as the legal father based on his consent to the insemination.\textsuperscript{78} Given inconsistent court holdings, state legislatures eventually weighed in, with current statutes continuing the latter approach. These laws provide that a husband who consents to donor insemination is the legal father and the sperm donor has no legal rights or responsibilities for the child.\textsuperscript{79} Until states provide more binding guidance for non-marital families, however, legal uncertainties will remain with respect to the parentage of donor-conceived offspring – for instance, when a lesbian in a relationship does not have legal parental standing with her partner’s child conceived through donor insemination.

The law is less clear regarding determinations of parenthood when egg and embryo transfers are involved. A few states have enacted legislation specifying that providers have no legal responsibility for children who are conceived through the use of their eggs (an approach consistent with laws related to the obligations of sperm donors), but most states have not addressed this issue at all.\textsuperscript{80} Similarly, numerous legal questions remain concerning parentage in adoptive families that are formed outside of the heterosexual married couple, including by single parents and gay and lesbian couples, as there are with ART.\textsuperscript{81}

\textsuperscript{77} For example, courts in Pennsylvania have held, in an effort to preserve the husband-wife-child arrangement, that the only way to rebut a marital presumption of paternity is by showing the husband’s impotency, sterility or non-access to the wife during conception, and blood tests can never be offered to rebut the presumption. \textit{See Vargo v. Schwartz, 940 A.2d 459, 463 (Pa. Super. Ct. 2007).} On the other hand, courts in Missouri have held that a biological father’s paternity may only be rebutted with “clear and convincing” evidence, which is a formidable obstacle given DNA testing accuracy. \textit{See Courtney v. Roggy, 302 S.W.3d 141, 146 (Mo. Ct. App. 2009).}

\textsuperscript{78} \textit{Cahn, supra note 30, at 81.}

\textsuperscript{79} \textit{Id.}

\textsuperscript{80} \textit{Id. at 94.}

\textsuperscript{81} \textit{Arons & Center for American Progress, supra note 66, at 23.}
The Uniform Parentage Act (2002), model legislation proposed by the National Conference of Commissioners on Uniform State Laws, provides that children born through sperm, embryo and egg donation are to be treated comparably to each other. The act, however, has been enacted in only a handful of states,\(^8\) although other states have addressed some of these issues in their own statutes.

The ABA has drafted a Model Code Governing Assisted Reproduction that is consistent with the parentage provisions of the UPA. The ABA goes further, however, and gives assisted reproductive technology (ART) patients, participants, parents, providers, and the resulting children and their siblings clear legal rights, obligations and protections. These goals are accomplished by establishing legal standards for the use, storage, and other disposition of gametes and embryos, by addressing societal concerns about ART, such as clarifying issues of health insurance coverage for the treatment of infertility, and by establishing legal standards for informed consent, reporting, and quality assurance.\(^8\)

The Model Code also addresses donor identity, counseling, compensation and surrogacy.

An issue of serious concern in ART is the maintenance of information. Although federal regulations mandate safety testing of donated gametes (for HIV and other infectious diseases) and examination of medical records for risk factors, they do not require long-term retention of the donors’ medical and historical information. Indeed, fertility clinics have generally kept limited records about donors and, in an effort to ensure anonymity, some have destroyed all records. In adoption, medical, historical and other background are considered vital; some records containing such information are retained by the practitioners (agencies or attorneys) and others are kept by government offices. However, gaining access to this information continues to be a challenge for many adopted individuals. In addition, registries of various sorts


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are widely utilized to provide information, as well as to expedite searches for biological relatives.

Some in the fertility industry have advocated for the creation of a voluntary registry to assist donor-conceived individuals in gaining information about themselves. One such registry already exists; the Donor Sibling Registry, a non-profit Internet-based databank, has enabled thousands of people to find biological relatives. A more systemic means for addressing access to information would be the creation of a National Donor Gamete Database, along with programs to ensure its effectiveness, mandate participation, and protect confidentiality. In fact, the ABA has crafted a model for states, that provides suggestions on what should be included in a national registry, including retaining relevant records until the resulting offspring reach the age of majority and establishing procedures to allow for information disclosure based on mutual consent.

Through a coherent legal and regulatory structure, along with oversight mechanisms similar to or informed by those in place for adoption, ART could standardize practice and ensure accountability for the decisions made on behalf of donors, recipients and the children conceived through gamete transfers.

IV. Moving Forward

Policies and practices from the adoption world offer much for ART to consider as its own policies and practices evolve, although, of course, adoption does not offer either a complete model or a template; notwithstanding the many similarities between the two worlds, they have significant differences as well. The following recommendations are intended to aid the continued development of strong, ethical processes and protections in

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86 This article has focused primarily on similarities. For analysis of differences, see Cahn, supra note 47 ; (NAOMI CAHN, THE NEW KINSHIP forthcoming 2012) (manuscript on file with Naomi Cahn).
the provision of assisted reproduction services. First, building on clear lessons learned in adoption, offspring born of ART should have access to information about themselves and the circumstances of their births – from their parents as they grow up and, once they reach the age of 18, through independent access to identifying information about the gamete/embryo donors and medical and social histories. To ensure this information’s availability, the United States should join Great Britain and other countries in mandating that records be maintained that identify sperm, egg, and embryo donors. Practice models should be developed for clinics, gamete banks, and other entities involved in all aspects of assisted reproduction, including models that provide for the full disclosure of health information, updating of that information, and safeguards to minimize risks to children. Donors should be able to easily and regularly update medical and other information they initially provided, and donor-conceived offspring should be able to make connections through existing and new registries. The growing body of laws and procedures that facilitate greater disclosure in adoption provides a useful model for the ART world. Second, additional research should be conducted to expand professional and participant understanding about the experiences of all members of assisted-reproduction families – including those headed by gay, lesbian and single parents – and the extent to which ART services are available to them. Research is needed to expand the understanding of issues such as ensuring access to needed services for donors, recipients and donor offspring; differing approaches to equitable access to services and development of appropriate guidelines; and varying procedures by the agencies, businesses and service providers in each area, such as those involved in screening prospective parents, counseling any participants, documentation, and record-keeping. Third, legal and regulatory frameworks for ART should be developed by synthesizing existing standards and protocols, and through ongoing development of models to address the needs of all parties, based on research in the fields of ART and

adoption, both in the United States and other countries. Advocacy is needed to bring about implementation of these standards in state laws and industry policies. Important steps in these processes include developing appropriate models for providing ongoing information to children (and their parents) conceived through ART and for giving them access to relevant records once they reach the age of 18; analyzing the need for legislation that provides for secure collection of information about number of births from assisted reproduction, and for ensuring that accurate information is collected and stored; assessing the need for legislation in the United States that would restrict the number of donations from one individual to prevent inadvertent incest, and that would limit the number of embryos that may be implanted in one woman; and developing legislation governing informed consent for both gamete providers and recipient parents concerning not only the medical consequences of their use of the technology, but also the potential needs of the children conceived.

V. Conclusion

Because there are genuine differences between adoption and ART, and because a body of research relating to the latter exists, some comparisons in this article are imperfect and not all the recommendations offered are concrete. Nevertheless, it is apparent that there are significant similarities and intersections; moreover, in many ways (particularly relating to secrecy, stigma and shame), ART is traveling the same road – and risks making some of the same mistakes – as adoption did in its past. To be sure, policy and practice in adoption has a long way to go, but it nevertheless has much to teach based on its generations of experience and a solid, growing body of research. Many of these old lessons are clearly applicable to the new world of assisted reproduction.
Appendix A
National Data on ART from Centers for Disease Control and Prevention

Figure 49 shows the increase in ART cycles in the United States, followed by a table providing a national snapshot of ART cycles.

Figure 51: Numbers of ART Cycles Performed, Live-Birth Deliveries, and Infants Born Using ART, 1999–2008.

Figure 51 is a line graph with three lines representing the numbers of ART cycles performed, live-birth deliveries, and infants born using ART, by year from 1999 to 2008.
- 2001: 107,587 ART cycles, 29,344 live-births, 40,687 infants born
- 2002: 115,392 ART cycles, 33,141 live-births, 45,751 infants born
- 2003: 122,872 ART cycles, 35,785 live-births, 48,756 infants born
- 2004: 127,977 ART cycles, 36,760 live-births, 49,458 infants born
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- 2005: 134,260 ART cycles, 38,910 live-births, 52,041 infants born
- 2008: 148,055 ART cycles, 46,326 live-births, 61,426 infants born


National Summary Table (selected statistics)

**2008 ART CYCLE PROFILE**

<table>
<thead>
<tr>
<th>Type of ART</th>
<th>Procedural Factors</th>
<th>Patient Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVF &gt;99%</td>
<td>Tubal factor 8%</td>
<td>Other factor 8%</td>
</tr>
<tr>
<td>GIFT &lt;1%</td>
<td>Ovulatory dysfunction 7%</td>
<td>Unknown factor 11%</td>
</tr>
<tr>
<td>ZIFT &lt;1%</td>
<td>Diminished ovarian reserve 14%</td>
<td>Multiple Factors:</td>
</tr>
<tr>
<td>Combination &lt;1%</td>
<td>Used female factors</td>
<td>Female factors only 12%</td>
</tr>
<tr>
<td></td>
<td>Unstimulated &lt;1%</td>
<td>Endometriosis 4%</td>
</tr>
<tr>
<td></td>
<td>Gestational carrier &lt;1%</td>
<td>Female &amp; male factors 18%</td>
</tr>
<tr>
<td></td>
<td>Used PGD 4%</td>
<td>Uterine factor 1%</td>
</tr>
<tr>
<td></td>
<td>With eSET 3%</td>
<td>Male factor 17%</td>
</tr>
</tbody>
</table>

**2008 PREGNANCY SUCCESS RATES**

<table>
<thead>
<tr>
<th>Type of Cycle</th>
<th>Age of Woman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Embryos from Nondonor Eggs</td>
<td>&lt;35</td>
</tr>
<tr>
<td>Number of cycles</td>
<td>43,926</td>
</tr>
<tr>
<td>Percentage of cycles resulting in pregnancies</td>
<td>47.6</td>
</tr>
<tr>
<td>Percentage of cycles resulting in live births b</td>
<td>41.1</td>
</tr>
<tr>
<td>Frozen Embryos from Nondonor Eggs</td>
<td>&lt;35</td>
</tr>
<tr>
<td>Number of transfers</td>
<td>11,343</td>
</tr>
<tr>
<td>Percentage of transfers resulting in live births b</td>
<td>35.5</td>
</tr>
<tr>
<td>Average number of embryos transferred</td>
<td>2.2</td>
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</tbody>
</table>

All Ages Combined d

<table>
<thead>
<tr>
<th>Donor Eggs</th>
<th>Fresh Embryos</th>
<th>Frozen Embryos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of transfers</td>
<td>10,718</td>
<td>5,861</td>
</tr>
<tr>
<td>Percentage of transfers resulting in live birthsb</td>
<td>55.0</td>
<td>33.2</td>
</tr>
<tr>
<td>Average number of embryos transferred</td>
<td>2.1</td>
<td>2.2</td>
</tr>
</tbody>
</table>

**CURRENT CLINIC SERVICES AND PROFILE**

Total number of reporting clinics: 436

Percentage of clinics that offer the following services:

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Donor egg</td>
<td>92</td>
</tr>
<tr>
<td>Gestational carriers</td>
<td>83</td>
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<tr>
<td>SART member</td>
<td>86</td>
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<tr>
<td>Donor embryo</td>
<td>67</td>
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<td>--------------</td>
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<tr>
<td>Single women</td>
<td>93</td>
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</table>

* Reflects patient and treatment characteristics of ART cycles performed in 2008 using fresh nondonor eggs or embryos.

* A multiple-infant birth is counted as one live birth.

* See [additional statistics for older women](http://www.cdc.gov/art/ART2008/PDF/01_ARTSuccessRates08-FM.pdf (p. 91)).

* All ages (including ages >44) are reported together because previous data show that patient age does not materially affect success with donor eggs.

Source: CDC (2010), National Summary Table, [http://www.cdc.gov/art/ART2008/PDF/01_ARTSuccessRates08-FM.pdf](http://www.cdc.gov/art/ART2008/PDF/01_ARTSuccessRates08-FM.pdf (p. 91))