

Ethics of Assisted Reproductive Technologies (ART)

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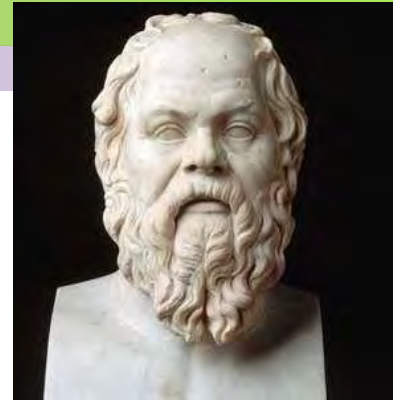
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Learning objectives



- Recognize some of the limitations with the current definition of infertility and some of the public's misperceptions about infertility
- Describe some common objections to ART generally
- Discuss some of the ethical considerations of specific ARTs, including fertility preservation

Overarching goal: Be more equipped to discuss the ethics of assisted reproductive technologies

Brief Bioethics Background

What is bioethics?

Bio = medicine and science

Ethics = the study of right and wrong

Bioethics = the study of right and wrong in medicine and science



Normative vs. Descriptive

- Descriptive claim: a claim that examines how things actually are, **what our reality is**
 - Scientists and clinicians are interested in descriptive questions
- Normative claim: a claim that examines how things ought to be, **how things should be**
 - Ethics is concerned with justifying normative claims
 - “Ought implies can” → any normative claims we make should be descriptively possible

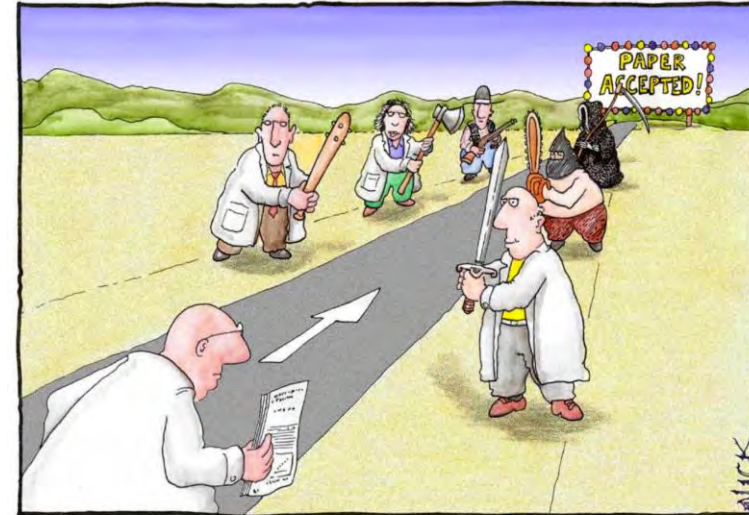
Spectrum of views

- Viewpoints are not always dichotomous, but exist on a spectrum
- Universalism: the belief that there is only one right answer
 - In the extreme, doesn't allow for tolerance of different views
- Relativism: the belief that there is more than one right answer
 - In the extreme, we can't make any normative claims



Ethics ≠ Opinion

- Goal is to construct a “position” or make a “case” → move toward rational justification
 - Incorporates objective elements: facts, sound analysis, inferential reasoning, judgment, etc.
- Social and cultural differences relevant as context but not necessarily definitive
- The lack of precision or the possibility of error does not make ethics “just opinions”



Most scientists regarded the new streamlined peer-review process as “quite an improvement.”

PEER REVIEW CRITERIA GUIDE



“Philosophical” Method



1. Question
2. Research
3. Hypothesis/Thesis
4. “Experiment” by using logic and reasoning to construct arguments
 - We “test” our thesis by applying various ethical theories and principles, conducting thought experiments, and anticipating and responding to objections
5. Analysis
6. Conclusion

A good ethical argument has

- **True premises** (supporting claims for an argument)
- **Valid reasoning** (conclusion follows from the premises)

Argument 1

- Premise 1: All eagles can fly.
- Premise 2: I am an eagle.
- Conclusion: I can fly.

False premise, valid reasoning

Argument 2

- Premise 1: Some people like to eat fish.
- Premise 2: Some bears like to eat fish.
- Conclusion: Some people are bears.

False reasoning, true premises

Ethical theories and principles

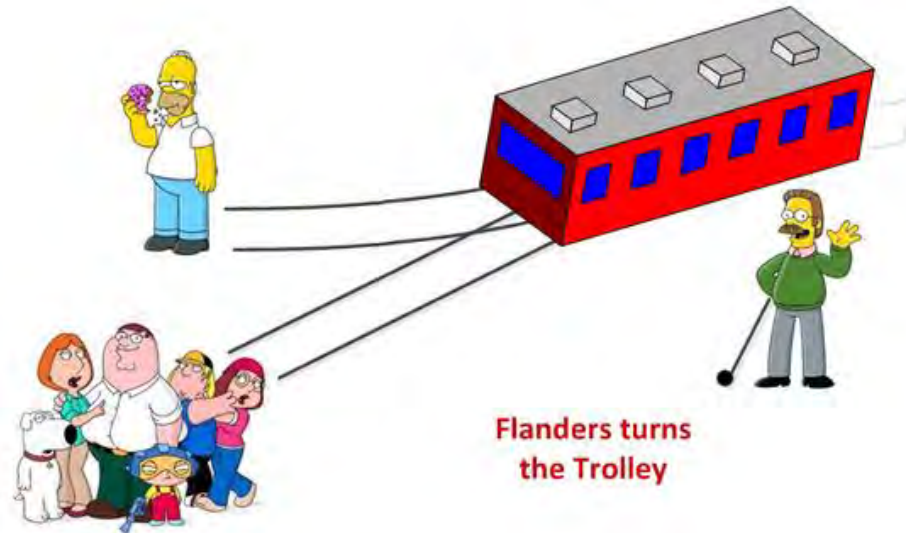
- Tools to draw on to support arguments



- Intra and inter theory conflict may occur for any given case
 - This can help us to understand the ethical problem and our values better

Utilitarianism

- An action is good if it maximizes the greatest amount of good (pleasure) for the greatest number
 - Focused on consequences



Deontology (Kantian ethics)



- An action is good if it adherence to a rule or duty
 - Concerned with intention, not consequences



- “Golden rule”
 - Dignity requires treating people as ends in themselves, not merely as means to an end

Four bioethics principles

- Respect for autonomy
 - Respect autonomous decisions
 - Protect those without capacity
- Nonmaleficence
 - Do no harm
- Beneficence
 - Relieve, lessen, or prevent harm
 - Provide benefits and balance benefits against risks and costs
- Justice
 - Equal and fair distribution of resources

Negative vs. positive rights

- Negative rights: the right from something; basically the right to be left alone and not to be interfered with
 - Right to bodily integrity
 - e.g. right to refuse treatment
- Positive rights (entitlement rights): the right to something
 - Entail duties from others
 - Often contentious
 - e.g. right to healthcare

DEFINING INFERTILITY

What is infertility?

- In the U.S. the standard definition is not achieving pregnancy after one year of regular unprotected heterosexual intercourse for women under 35. For women over 35, the timeframe reduces to 6 months.



Definitions of infertility by organization

Organization	Definition of Infertility
World Health Organization (WHO)	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.
National Institute of Health (NIH)	Infertility means not being able to become pregnant after a year of trying. If a woman keeps having miscarriages, it is also called infertility.
RESOLVE: The (US) National Infertility Association	Infertility is defined as the inability to conceive after one year of unprotected intercourse (six months if the woman is over age 35) or the inability to carry a pregnancy to live birth.
American Society of Reproductive Medicine (ASRM)	Infertility is the result of a disease (an interruption, cessation, or disorder of body functions, systems, or organs) of the male or female reproductive tract which prevents the conception of a child or the ability to carry a pregnancy to delivery. The duration of unprotected intercourse with failure to conceive should be about 12 months before an infertility evaluation is undertaken, unless medical history, age, or physical findings dictate earlier evaluation and treatment.

Who is minimized or excluded from standard definitions of infertility?

- men
- anticipated infertility
- social infertility

Minimizes men's infertility

- Men and women equally likely to be infertile
- Historical and cultural belief that women are more likely to be infertile
- More inclusive definition: “Infertility is the result of a disease ... of the male or female reproductive tract which prevents the conception of a child or the ability to carry a pregnancy to delivery.” ASRM



Anticipated infertility

- Not currently trying to conceive, but have foreseeable infertility
 - individuals with cancer or other medical conditions
 - individuals who are transgender or have differences of sex development
 - women who experience age-related infertility
- Usually not covered by insurance

Social infertility



- People can be infertile because of who their partner is or because they don't have a partner
- The WHO recently changed their definition of infertility to include lesbian and gay couples and single individuals
- Lesbian couples suing NJ because of the requirement to have heterosexual intercourse in order to “prove” infertility

Misperceptions about who is infertile



- Perception: people who are infertile are generally white, middle-class, educated people who have chosen to delay childbearing
 - These individuals are the most likely to *use ART.*
- Reality: people who are infertile are typically people of color, poor, less educated, and within their prime childbearing years

Is infertility a disease?

- Public says no
 - 72.2% in one study
- Infertility treatment does not treat an underlying disease but rather produces a desired outcome (i.e. a child).
- Medicine says yes
- Infertility is an aberration of “normal” functioning
- Infertility can lead to psychological problems



GENERAL ETHICAL ISSUES WITH ART

What types of regulation
should be required for ART?

Regulation comparison

USA

- Limited governmental oversight
 - FDA regulates human reproductive tissue
 - Federal Clinic Success Rate and Certification Act of 1992
 - Legality of surrogacy varies by state
- ASRM provides guidance

UK



**Human
Fertilisation &
Embryology
Authority**

- Governmental agency regulating fertility treatment and research

Who should pay for ART?

15 states require insurance companies to provide infertility treatment coverage



35 states to go!

www.whitneyanderrick.com

Classification of infertility

Individuals should pay

- ARTs are not medically necessary
- There are other ways to build a family (e.g. adoption)

Insurance should pay

- Much of medicine today is focused on improving quality of life
- Justice demands treating infertility like other medical conditions
- Genetic parenthood as a right

Financial

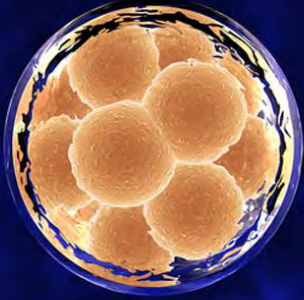
Individuals should pay

- ARTs are expensive
- There are more important health needs that could help more people

Insurance should pay

- Expense of ARTs unfairly burdens individuals
- ARTs account for only 0.06% of the total health care expenditure in the US

How should we ethically
understand and legally
classify embryos?



Embryos

- Entities with moral status are entitled to certain rights
- What is the moral status of embryos?
 - Can they be destroyed?
 - Can they be used in research?
 - Do embryos have a right to be implanted?

Embryos

- Legally embryos are considered a form of property
 - cannot be adopted
 - “Snowflake babies”
 - cannot be bought and sold



Sofia Vergara vs. Nick Loeb

- Vergara and ex-fiancé, Nick Loeb, created embryos using IVF
- Contract said they'd only implant embryos if both agreed; they've since broken up
- Loeb is suing for custody of the embryos
- 1986 Louisiana law declares embryos to be “juridical persons”
- Lawsuit in Louisiana filed on behalf of the embryos claiming that Vergara has abandoned them and that they are being deprived of their inheritance from a trust by not being born



Should biological parenthood
be prioritized and does ART
reinforce “normative
parenthood”?

ART prioritizes biology



- Reinforces the belief that biological children are better than nonbiological children
- Minimizes the importance of parenthood as a social relationship
- Undervalues adoption and “alternative” ways of family formation



ART upholds racial boundaries

Donor matching reinforces shame in infertility and racial boundaries

NY Post Headline: *Black Baby Born To White Pair*

“A Park Avenue fertility clinic’s blunder has left a family devastated – after a black baby was born to a Hispanic woman and her white husband, the couple charges in a lawsuit.”

Lawsuit states: "On August 21, 2012, Jennifer gave birth to Payton, a beautiful, obviously mixed-race baby girl. Jennifer bonded with Payton easily and she and Amanda love her very much. Even so, Jennifer lives each day with fears, anxieties and uncertainty about her future and Payton's future."



“Blood Is Thicker than Water: Policing Donor Insemination and the Reproduction of Whiteness.” Seline Szkupinski Quiroga



Should there be limits to ART
based on age?

Aging and ART

- There is a “normal” and “natural” time for childbearing, especially for women, and it is best for women and children if people have children during that timeframe.



Paternal age

- Objections about age usually directed at women
 - More public knowledge about how age affects women's fertility than men's
 - Assumes women will be primary caregiver
- Older paternal age linked to schizophrenia, Down syndrome, and autism



Age and preconception harm in US newspapers

- Almost three times more likely to be surprised about men's age and harm than women
- Over twice as likely to blame women than men
- Over three times more likely to reassure men than women

Too young for ART?

- Is there any age that is too young to offer ART?

Minors and fertility preservation

- Assent/consent
- Best interest standard
- Parental and provider pressure
- Cost and insurance coverage
- Experimental treatment

Campo-Engelstein, L. and D. Chen. "Ethical Issues in Pediatric and Adolescent Fertility Preservation" in *Pediatric and Adolescent Oncofertility*, eds. T.K. Woodruff and Y.C. Gosiengfiao (2017).

McDougall RJ, Gillam L, Delany C, et al. Ethics of fertility preservation for prepubertal children: should clinicians offer procedures where efficacy is largely unproven? *Journal of Medical Ethics* 2018;44:27-31.

What social and ethical issues
are raised by multifetal
pregnancies?

Should multifetal pregnancies
via ART be permitted?

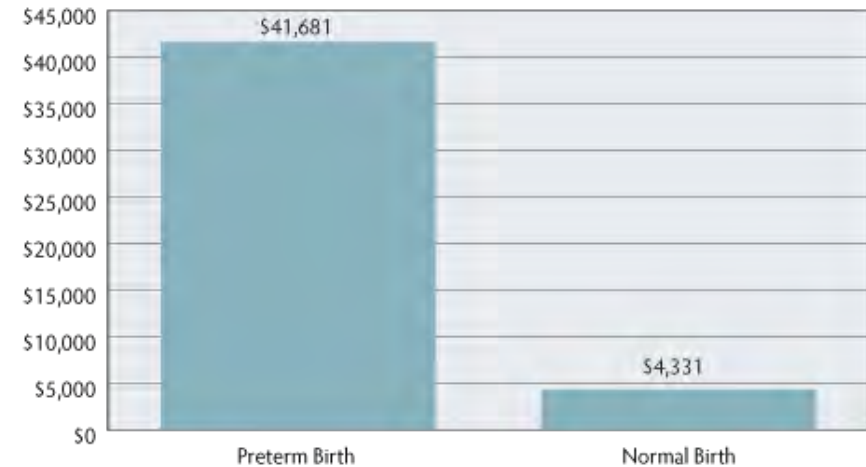
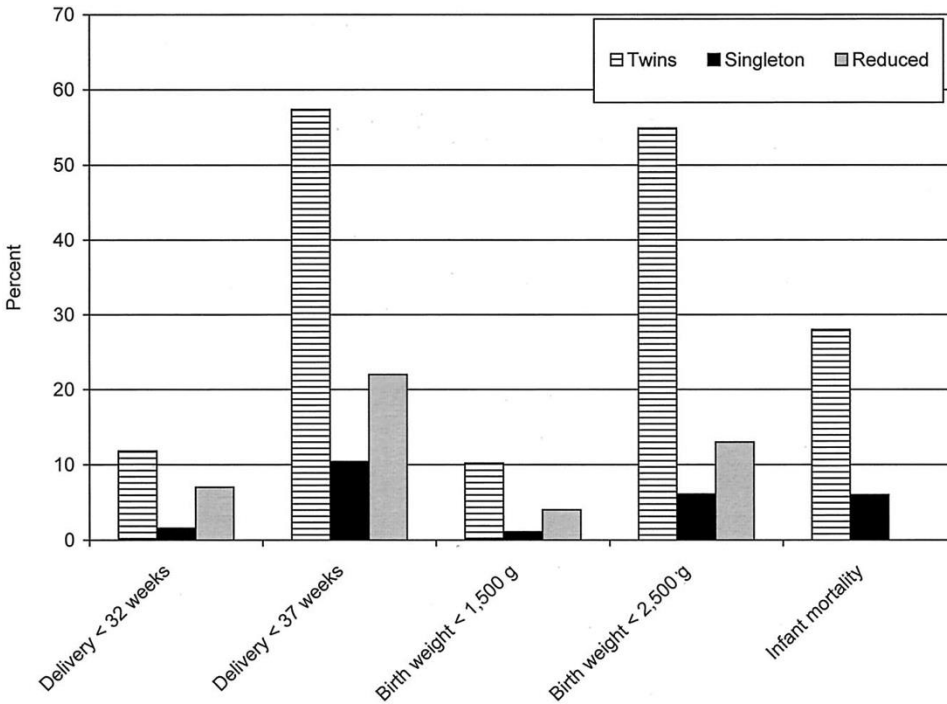
Multifetal pregnancies

- Fertility drugs and IVF can increase the likelihood of multiples
- There is a strong risk of severe prematurity for all the fetuses, which could lead to significant health problems for them
- There are also risks the pregnant woman, including higher incidence of preeclampsia, premature labor, gestational diabetes, and premature rupture of membranes
- The US does not have any regulations on the number of embryos that can be implanted



Comparison of Outcomes For Twins, Singletons, and Reduced Cases

Average Costs in the First Year of Life, Preterm and Full Term Infants, 2008 to 2009

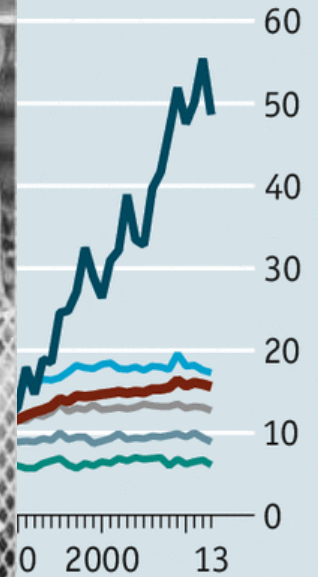


Dramatic increase in multiples

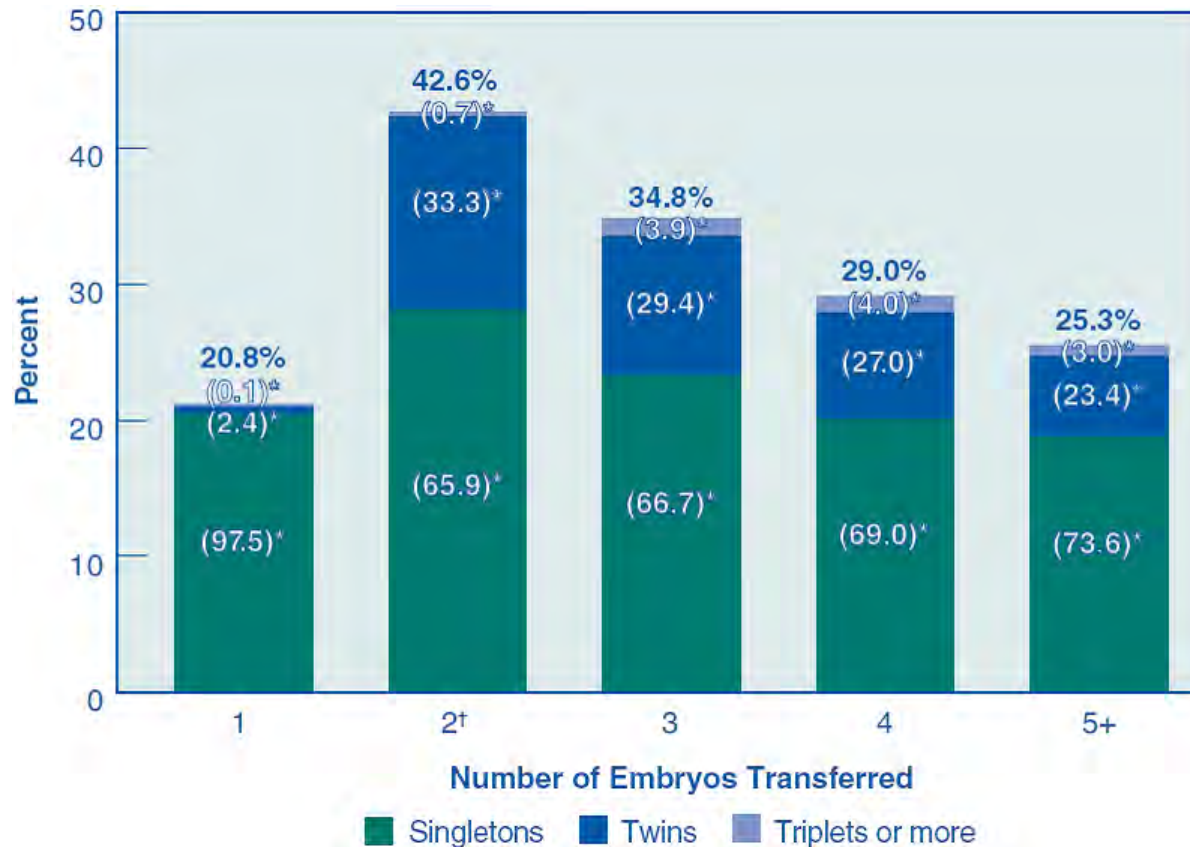


SOURCE: National Vital Statistics Reports, "Births

1,000 pregnancies



Live Birth Rate by Number of IVF Embryos Transferred



Public fascination with multiples

- Heroic nature of medicine
- Fascination with medical “freaks”
- White, heterosexual, Christian couples receive positive media attention
 - Upholds dominant cultural beliefs: pro-natalist, traditional gender norms, Christian faith, pro-life

McCaughey Septuplets

- Bobbi McCaughey used fertility drugs and gave birth to septuplets in 1997
- The parents received a donated 16-room house, a 15-passenger van, baby food from Gerber, a lifetime supply of Pampers from Procter & Gamble, and a call from President Clinton
- Religious Christian, pro-life white heterosexual couple who already had a 2 year old biological daughter



Cbriis Sygma



Chukwu Octuplets/Septuplets

- After using fertility drugs, Nkem Chukwu gave birth to octuplets in 1998. One of the babies died shortly after birth
- The family lives in a donated, six-bedroom suburban home, and the stay-at-home mom had a small army of volunteers help feed and care for the seven surviving babies for the first few years
- Religious heterosexual black couple born in Nigeria and now living in Texas who didn't have any other children



Gosselin Twins and Sextuplets

- Using fertility drugs, the Gosselins had twins (2000) and sextuplets (2004)
- Before fame they had help from their community, especially their church; gained fame through their TV show and then received many gifts and endorsements
- Religious Christian, pro-life heterosexual couple



Quints by Surprise



Raising Sextuplets



Sextuplets Take New York



Table for 12



Suleman Octuplets

- Nadya Suleman had 6 embryos implanted and gave birth to 8 babies in 2009
- Although she has received some gifts, many companies don't want to be affiliated with her
- Single woman, not overtly religious, sexual orientation not "confirmed," Middle-Eastern descent who already had 6 children



SPECIFIC ARTS

FERTILITY PRESERVATION

What factors should play into whether oncofertility is offered?

- Social factors (SES, marital status, sexual orientation, etc.) should not play a role
- What role should prognosis play?

Should insurance companies cover oncofertility?

- Arguments for covering ARTs
- Cancer patients often only have one shot at preserving their fertility
- Infertility is iatrogenic

Fertility Preservation

Fertility After Cancer



Justice and iatrogenic conditions

- Treatments to prevent potential iatrogenic conditions are usually covered by insurance
 - Storing one's own blood in case of an emergency transfusion
 - Breast reconstruction after lumpectomy or mastectomy
 - Infertility and breast loss or asymmetry are both iatrogenic conditions that are often not considered medically necessary when naturally occurring

Fertility Preservation Coverage Legislation 2017-2018

State	Bill	Status	Structure	Proposed Coverage
CT	HB7124	Signed into law 6/20/17	Medically necessary	Changed statutory definition of "infertility" to include "medical necessary" treatment; amended existing IVF mandate
RI	S 0821A & H 6170A	Signed into law 7/05/17	FP for iatrogenic infertility	Standard FP services if necessary medical treatment may cause iatrogenic infertility; amended existing IVF mandate
MD	SB271 & HB908	Signed into law 5/18/18	FP for iatrogenic infertility	Standard FP services if necessary medical treatment may cause iatrogenic infertility; large groups only
DE	SB139	Signed into law 6/30/18	IVF+FP	New infertility mandate, includes IVF and FP. Coverage for specifically delineates infertility treatments, including IVF and FP. Doesn't include state employees or state Medicaid recipients
IL	HB2617	Signed into law 8/27/18	FP for iatrogenic infertility	Standard FP services if necessary medical treatment may cause iatrogenic infertility; broad coverage including state employees and state Medicaid recipients
NJ	A3150 & S2133	Pending	FP for iatrogenic infertility	IVF mandated was updated in 2017; FP to be added in 2018
AZ	SB1149	Intro in Senate; Inactive	IVF+FP (iatrogenic)	IVF mandate; specific procedures listed; includes FP
CA	SB172	Heard in Sen. Health Cmte; Inactive	FP for iatrogenic infertility	Standard FP services if necessary medical treatment may cause iatrogenic infertility
HI	HB2669	Heard in House HHS Cmte; Deferred; Inactive	FP-cancer only	Oocyte, and sperm cryo for adult patients dx w/cancer; have not started treatment. Limit: one cycle
KY	SB95	Passed Senate; Inactive	FP for iatrogenic infertility	Coverage includes procedures for oocyte & sperm banking; one year of storage; lifetime limit of one cycle
LA	HB698	Hearings in House; sent to Cmte on Approps for reconsideration; Inactive	FP-cancer only	Coverage for embryo, oocyte, and sperm cryopreservation; limited to 18-40 yrs old; dx of cancer only; has not started cancer treatment. Limit: one cycle
MS	HB1198	Died in Cmte; Failed	IVF+FP (iatrogenic)	IVF mandate; specific procedures listed; includes FP
MO	HB2388	Referred to House Judiciary Cmte; Inactive	FP-cancer only	Coverage for embryo, oocyte, and sperm cryopreservation; limited to 18-40 yrs old; dx of cancer only; has not started cancer treatment. Limit: one cycle
NY	A02646A & S3148 S8441b	A02646A passed Assembly 2017 & 2018; S8441b passed Senate, 6/20/18; Inactive	IVF+FP (iatrogenic)	Update existing infertility mandate to include IVF and fertility preservation for iatrogenic infertility
	S7163 & A10660	Sent to Cmte in both chambers; Inactive	FP for iatrogenic infertility due to cancer treatment	Coverage for standard fertility treatment when a necessary cancer treatment may directly or indirectly cause iatrogenic infertility
VT	H629	Referred to Cmte on Healthcare; Inactive	FP-cancer only	Coverage for embryo, oocyte, and sperm cryopreservation; limited to 18-40 yrs old; dx of cancer only; has not started cancer treatment. Limit: one cycle

Medically Necessary Fertility Preservation Act

- **Section 1. Short Title.**
 - This Act shall be known as the, “Medically Necessary Fertility Preservation Act.”
- **Section 2. Summary.**
 - This Act shall provide coverage for medically necessary expenses for standard fertility preservation services when a medically necessary treatment may directly or indirectly cause iatrogenic infertility.
- **Section 3. Definitions.**
 - “Iatrogenic Infertility” means an impairment of fertility caused directly or indirectly by surgery, chemotherapy, radiation, or other medical treatment.
 - “Standard Fertility Preservation Services” means procedures to preserve fertility that are consistent with established medical practices or professional guidelines published by the American Society of Clinical Oncology or the American Society for Reproductive Medicine.
 - “Medical Treatment That May Directly or Indirectly Cause Iatrogenic Infertility” means medical treatment with a potential side effect of impaired fertility as established by the American Society of Clinical Oncology or the American Society of Reproductive Medicine.
- **Section 4. Plans Covered.**
 - Every health care service plan sold in the State that provides hospital, medical, or surgical coverage shall include coverage for medically necessary expenses for standard fertility preservation services when a necessary medical treatment may directly or indirectly cause iatrogenic infertility to a covered person.
 - This Act shall apply to all policies, contracts, and health benefit plans issued, delivered, amended, or renewed in the State on or after January 1, 2020.
- **Section 5. Effective Date.**
 - This Act shall take effect January 1, 2020.

What ethical issues are there with fertility preservation for minors who are transgender?

Transgender minors

- Assent/consent
- Affect on transition
- Masturbation
- Discordance between gender identity and gametes
- Sexual orientation
- Cost and insurance coverage

What ethical issues are there with fertility preservation for minors who have differences or disorders of sex development?

DSD minors

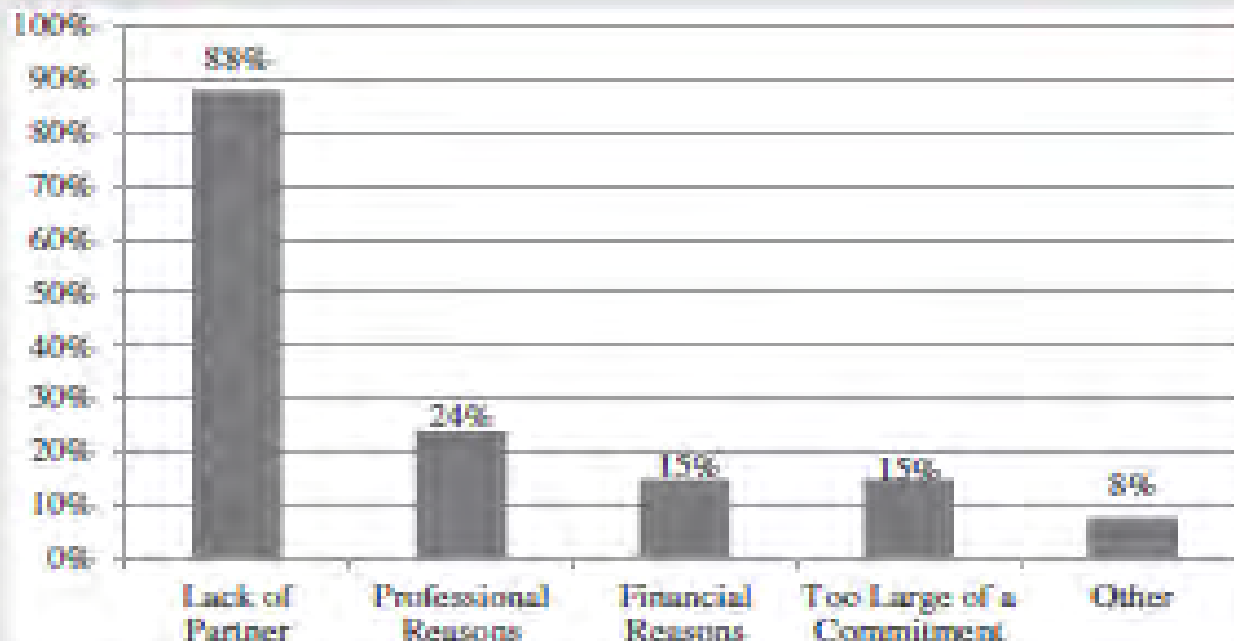
- Assent/consent
- Gonadectomy
- Discordance between gender identity and gametes
- Gender dysphoria
- Risk to future children
- Experimental treatment and false hope
- Cost and insurance coverage

What are ethical issues are raised by planned oocyte cryopreservation (OC)?

Planned oocyte cryopreservation

Addresses age-related infertility

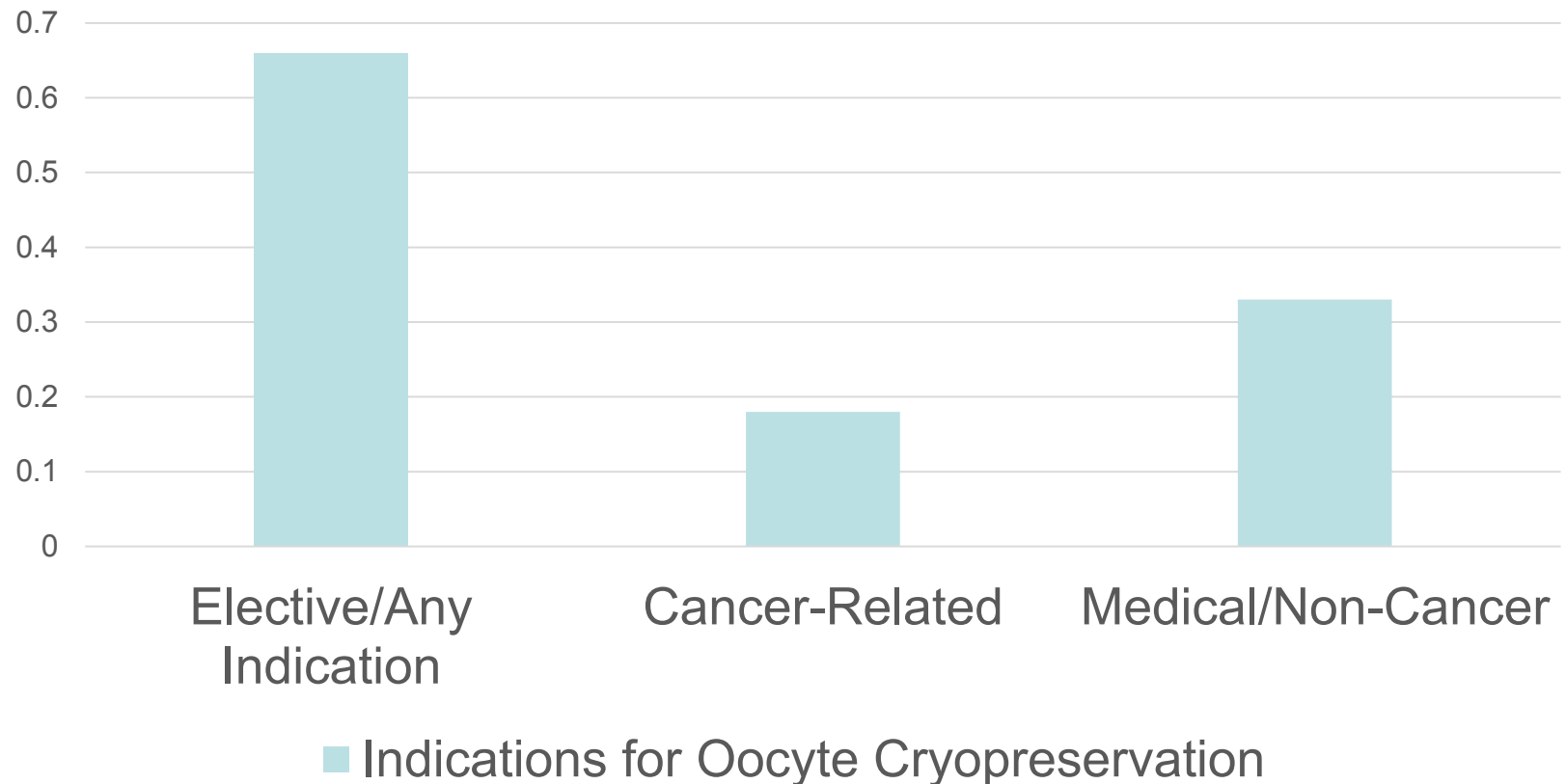
FIGURE 2



Reasons for not pursuing childbearing earlier.

Hoelscher-Wertz. What women think about oocyte freezing. Fertil Steril 2013.

- Huge growth in planned OC market
- ESHRE and ASRM lifted the experimental label on egg freezing in 2012



Change in ASRM guidelines

- “The Ethics Committee previously supported OC for women facing immediate, medically induced loss of fertility. But there are many less-immediate developments that could also threaten women's ability to have children in the future. These developments include diseases, primary ovarian insufficiency, traumatic injury, planned female-to-male gender transition, and the fertility loss that occurs as a woman ages. Planned OC may also benefit women seeking children in response to unanticipated future events such as remarriage or the death of an existing child.”

ASRM supports planned OC

- “For all stakeholders who provide and use planned OC, caution is warranted. There is a risk of misplaced confidence in the effectiveness of this procedure, as well as scientific unknowns concerning long-term or transgenerational offspring health. Mindful of these cautions, however, this Committee finds the use of OC for women attempting to safeguard their reproductive potential for the future to be ethically permissible.”

ESHRE

- Condones SEF
- Ethical principles: reproductive autonomy and justice
- Cultural values: statist pronatalism

ASRM

- Discourages SEF
- Ethical principles: nonmaleficence
- Cultural values: free market

ESHRE's statement

- ESHRE states that SEF should be made available to women who, facing “the threat of time” desire to cryopreserve their own eggs in order to **“give them more breathing space.”**
- ESHRE advises **against “a paternalistic attitude”** that would decide for a potential patient how “the importance of keeping open the prospect of having children later in their lives...weighs up to the burdens and risks of repeated stimulation and oocyte-pick up.”

ESHRE and autonomy

- ESHRE supports SEF for women due to conditions “beyond their own control.”
 - “Fertility preservation for women at risk of disease related or iatrogenic premature menopause clearly falls within the scope of reproductive medicine. The same can arguably be said of fertility preservation for **women who want to have children and are still without a partner at the age of 35. Their request is understandable, given that there is a reasonable chance beyond their own control that they will remain childless.**”
 - “But what about requests from women who deliberately choose to postpone childbearing while giving temporary priority to other life goals such as build-up of a career? ... **The postponing ‘career woman’ is not so deviant a character as many seem to think.**”

ESHRE and justice

- “For men, the combination of fatherhood with other life plans is not as difficult. **Not only do they tend to leave most of the burdens of daily care to their partners, but they also have the opportunity to reproduce until much later in their lives.** Moreover, men already can have their sperm cryopreserved.”
- “From a **feminist perspective**, therefore, the availability of options for female fertility preservation can be regarded as an important step towards **greater reproductive justice.**”

Statist pronatalist

- “societal benefits [of SEF] include the birth of additional children at a time of declining birth rates in developed countries.”
- “in many western societies, **there are demographic reasons for welcoming the birth of any extra child born to women who are socially, economically, and physically able to give it a good start in life.**”
 - SEF secures for the state the selective reproduction of privileged racialized and classed groups.
- Among eleven final recommendations, ESHRE urges “policy-makers in countries where IVF is (partly) covered within the healthcare system” to “consider how women whose stored oocytes are eventually used for reproduction can be compensated.”

ASRM's statement

- ASRM condones egg freezing for a number of “medical indications,” most prominently the case of cancer patients.
- However, ASRM cautions, “**there are not yet sufficient data to recommend [egg freezing] for the sole purpose of circumventing reproductive aging in healthy women.**”

ASRM and nonmaleficence

- “Marketing this technology for the purpose of deferring childbearing **may give women false hope and encourage women to delay childbearing.** In particular, there is **concern regarding the success rates** in women in the late reproductive years who may be the most interested in this application.”

Free market

- In the US, the field of assisted reproductive medicine is characterized by a mostly private, competitive, for-profit market which operates not only with minimal state interference but also minimal state support.
- The distilled version of ASRM's message, "egg freezing is no longer experimental," overtook any cautionary recommendations discouraging non-medical applications of egg freezing in mainstream news and popular media.
 - **Although the ASRM statement did not endorse SEF, it actually had the effect of unleashing unrestrained commercialization of SEF.**

Women's knowledge of planned OC

- “Those advising women about planned OC need to be clear about the novelty of the technology and the unknowns, attentive to the fact that some may have obtained information about the treatment from the media or in other commercialized settings.”



Media Marketing



Wine, Dine & "I'm Gonna Save Mine!" Egg Freezing Happy Hour

Join our experts to learn the latest about your fertility, egg freezing and more!

Event Details

THURSDAY, FEBRUARY 25th

6:00 PM - 9:00 PM

Bank On a Good Time! RSVP by 2/22



FEATURING:

“Ethics Committee is concerned about coercion and the line between education of young women and inappropriately aggressive marketing to them”

Planned OC (social egg freezing) in US newspapers

Code	% Articles
Cost concerns (e.g. SEF is expensive; health insurance usually doesn't cover SEF)	65.2%
SEF as a workplace benefit	63.8%
Stop or freeze biological clock	54.4%
SEF is not a guarantee, has low success rates	52.2%
Allows women time to pursue their education and career	50.0%
Egg freezing is no longer experimental	43.5%
Gives women time to find a partner	42.0%



Facebook, Apple pay to freeze employees' eggs

by Ben Rooney @ben_rooney

🕒 October 14, 2014: 4:50 PM ET



- Planned OC recognizes the importance of family and reproductive medicine
- Planned OC as a workplace benefit may enable women to utilize it who may otherwise not be able to afford it
- “This [ASRM] Committee commends employers that have provided insurance coverage for fertility treatments including planned OC.”

Planned OC as a workplace benefit benefits employers

- Pushes women to prioritize work
 - “By telling their female staff to hold off on having babies, these companies are demanding their employees put them before everything else, before their families, before their health. ... This isn’t a benefit created to make life better for working women, it’s a threat.” (Harriet Minter, The Guardian, 10/15/14)
- Easy way to appear women friendly without real cultural changes
 - Lack of other family friendly policies
 - neither Apple’s new headquarters nor Facebook’s recent housing community included on-site childcare

Planned OC as a workplace benefit as part of a holistic effort

- “The Ethics Committee encourages employers and lawmakers to enact policies that reduce the burden of childbearing and child-raising and that promote equality of women and men in the workplace and the world. It is important, however, that women not be subjected to pressure to cryopreserve their oocytes to show they are committed to their careers.”

Medical concerns with planned OC

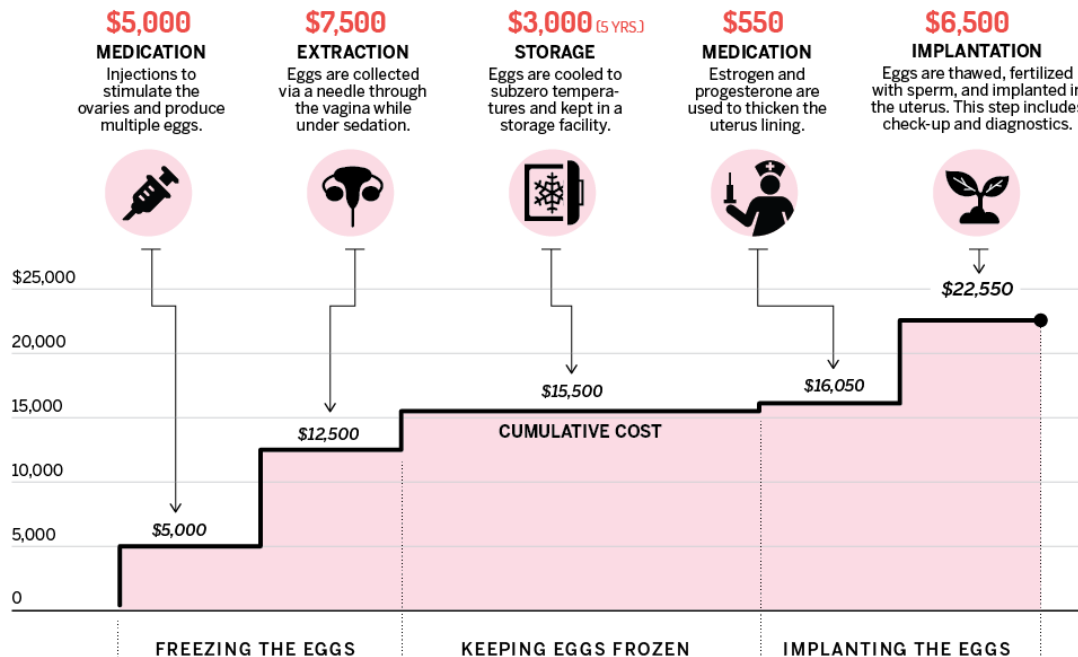
- Invasive
- Side effects
- Not guaranteed
 - Avoid language of “insurance”

Economic concerns with planned OC

Expensive and not covered by insurance

Reproductive medicine is a for profit market in the US

- Review of 387 websites of fertility clinics found that the majority of websites rated “poor” in their adherence to ASRM guidelines on planned OC, with an average score of 3.4 out of a 13 point scale



SOURCE: SHADY GROVE MEDICAL CENTER
 AVERAGES VIA SHADY GROVE FERTILITY'S "FEE FOR SERVICE" PROGRAM. STORAGE COST AT \$600 A YEAR AFTER FREE FIRST YEAR. IMPLANTATION FEE BASED ON ONE ROUND OF IVF.



Social concerns with SEF

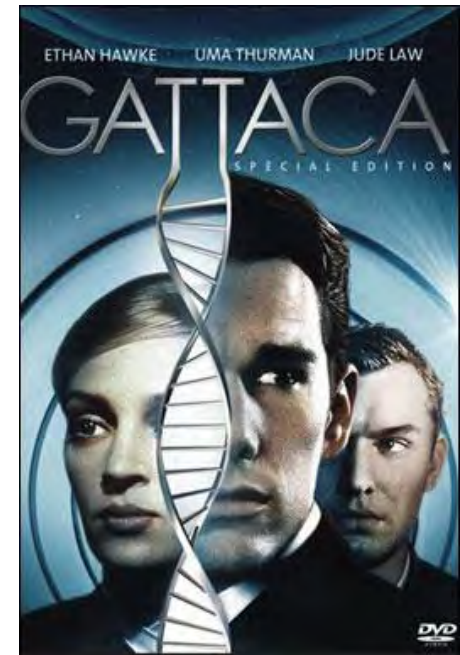
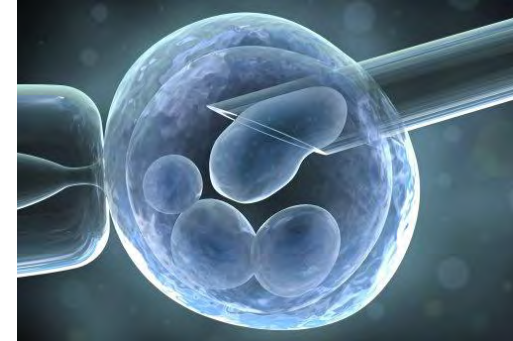
- Medical solution to social problem
 - Doesn't help women find partners
- Puts burdens and blame on individual women
 - Shift from option to obligation



What ethical issues are raised by
preimplantation genetic diagnosis
(PGD)?

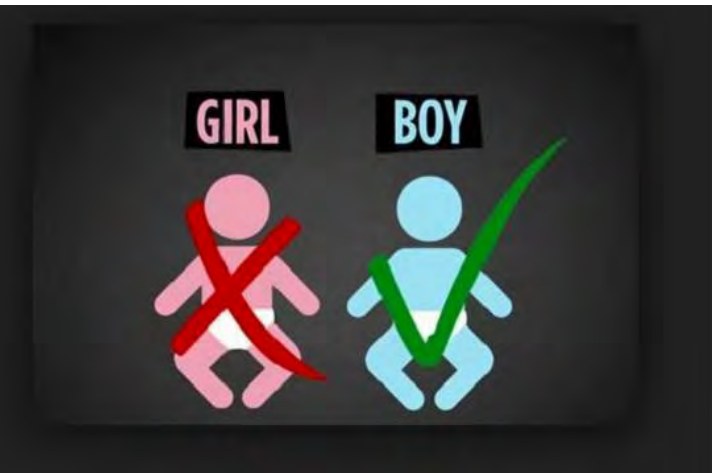
Preimplantation genetic diagnosis (PGD)

- Genetic profiling of embryos prior to implantation generally used to prevent certain diseases from being passed on to the child
- Concerns about devaluing disabled lives
- Concerns about blurring the line between therapeutic and enhancement
 - “Designer” babies
- Concerns about social justice and GATTACA future



**Is sex selection ethically
permissible?**

Sex selection



- Using sperm sorting, PGD, or abortion to determine the sex of future offspring
- Concern about cultural preference for boys and sex ratio
- Some support family balancing, which is having a second or third child of a different sex than previous child(ren)



ART WITH A THIRD PARTY

ART with a third party

- ART that involves “donors” and surrogates can challenge the traditional understanding of the parent-child relationship
 - Confusion and contestation over parental roles
 - Parent-child relationships can be created in contractual terms and on commercial grounds



Classifications of parents



1. **Intended or social parents:** the people who intend to raise the child
2. **Biological parents:** the ones who are genetically related to the child
3. **Birth or gestational parent:** the person who carries the fetus and ultimately gives birth to the child

An individual can fulfill one or more of these parental roles

What ethical issues are raised by gamete “donation”?

Egg and sperm “donation”



- The US is one of the only Western countries that allow gametes to be sold
 - Is there an ethical difference between selling gametes and organs?
- US is largest exporter of sperm
- Gendered differences in gamete donation ads

Lack of regulation

- No national guidelines determining and confirming donor eligibility
- No national database to keep track of donors, offspring, and frozen gametes and embryos



Gamete donation

- Sperm donation often kept secret to preserve the infertile man's masculinity
- Egg donation increasing and more open → gestational connection is sometimes more important to women than biological relationship
- “When a woman gets older, they get donor eggs, which doesn't make the baby any less beautiful or perfect. One's own eggs only last so long.” Marcia Cross



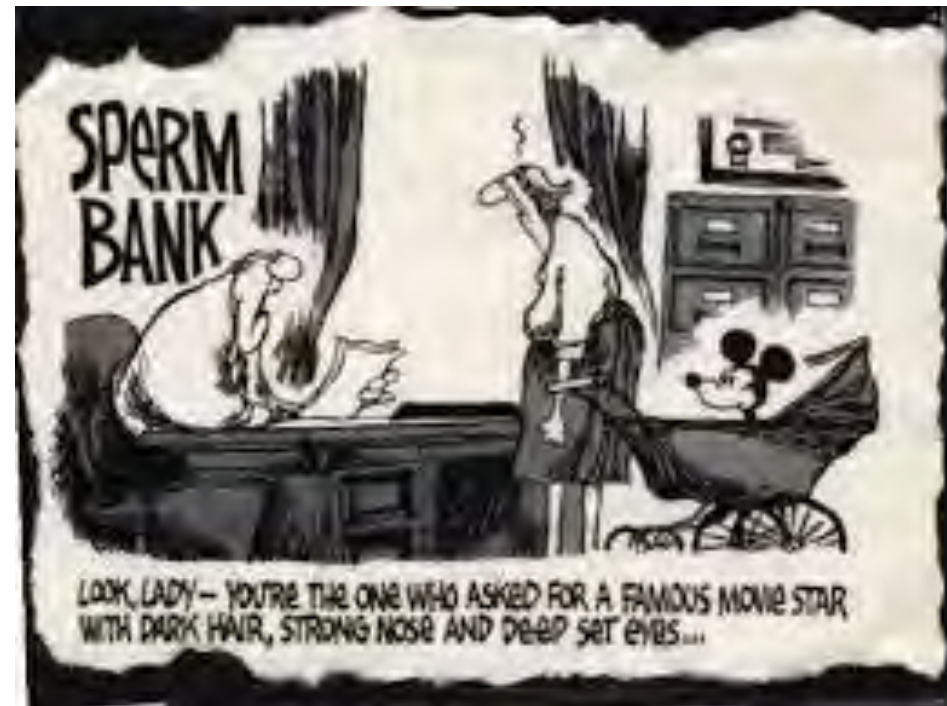
Donation and anonymity



- Could lead to incest
- Importance of family history and connection for identity
- US allows donor identity to remain anonymous
 - Many other countries allow children to find out donor's identity, or at least some information, when they reach 18

Donor “designer” babies

- Intended parents pick gamete “donors” based on particular qualities
 - Is this a “designer” baby?
- Deaf lesbian couple seek deaf sperm donor to have a deaf child



Mitochondrial donation

- There are 37 genes in the mitochondria and around 20,000 genes in the nucleus
- Uses donor mitochondria to prevent women from passing mitochondrial diseases to their children
- Children have the genetic material from 3 parents
- Concerns about what makes someone a parent



What legal and ethical issues are raised gestational surrogacy?

Surrogacy



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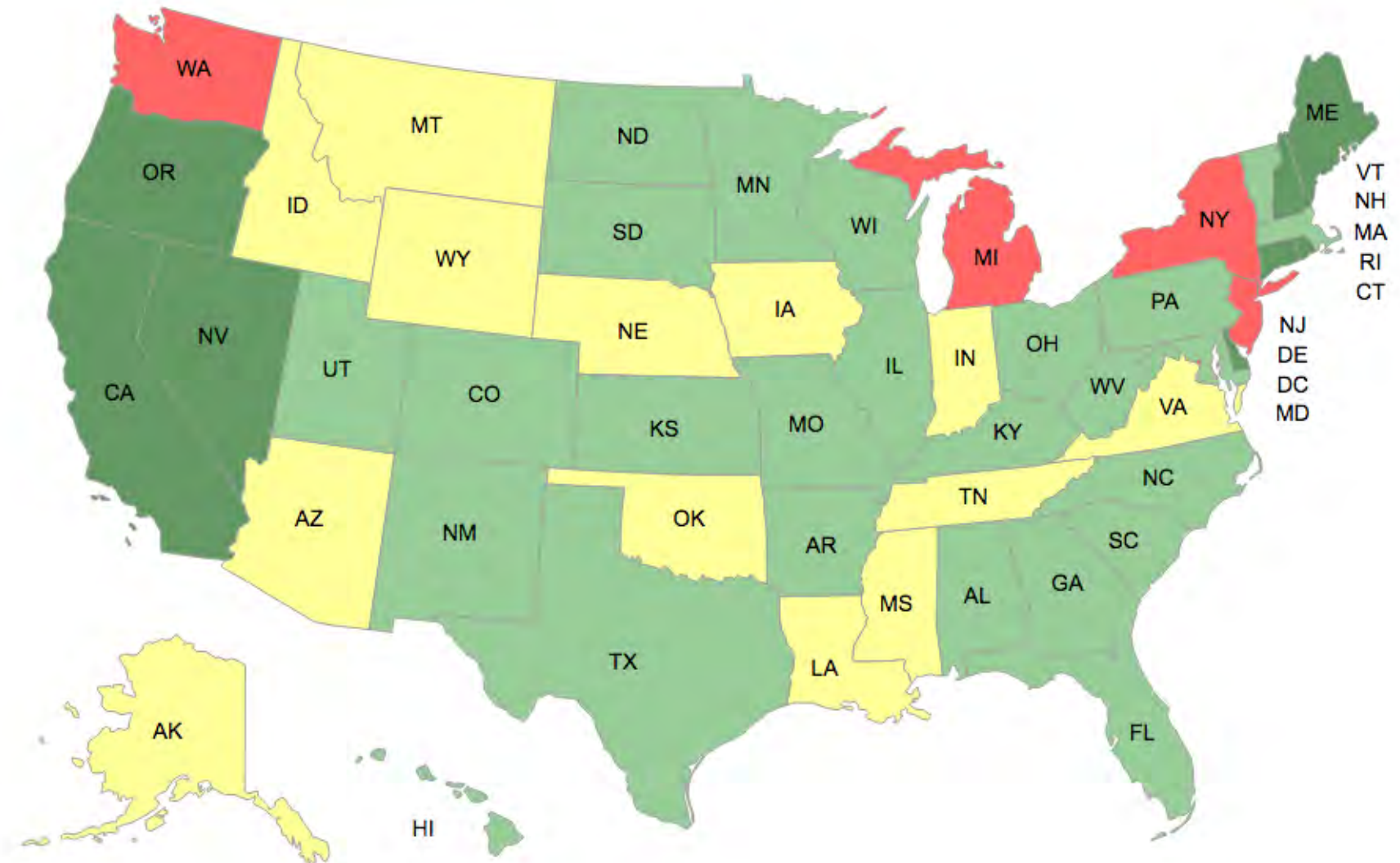
- Traditional surrogacy: gestational mother is also the biological mother
- Gestational surrogacy: gestational mother is **not** the biological mother

Baby M (1986-1988)



- William and Elizabeth Stern contracted with Marybeth Whitehead for traditional surrogacy.
- Baby M was born in 1986 and Whitehead refused to give her to the Sterns.
- The New Jersey Supreme Court ruled that Williams turned with have full custody and Whitehead would have visitation rights.

Surrogacy permissibility by state



Johnson v. Calvert (1990-1993)

- Zygote using married couple Crispina and Mark Calvert's genetic material is created and implanted into Anna Johnson, a surrogate
- Johnson sought parental rights
- California law only recognizes one mother and motherhood is based on who gave birth to the child and who is genetically related to the child—usually this is the same person
 - Court sees no clear legislative preference for one criterion over the other, so they find another way of determining the “natural” mother → Intention

Sherri Shepard vs. Lamar Sally

- Used Sally's sperm and egg donor with gestational surrogate with Sally and Shepard as intended parents
- Shepard and Sally divorced
- Shepard sued to be removed from birth certificate; Sally got full custody of the child
- Judge ruled Shepherd is the legal mother and must pay alimony and child support



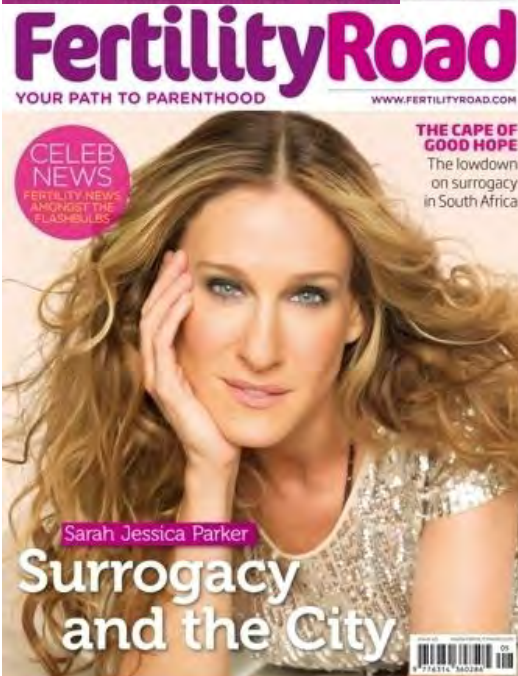
Jaycee Buzzanca (1996 - 1999)

- Erin Davidson was the egg donor. Her egg was fertilized with Mr. X's sperm. Mr. and Mrs. X donated extra eggs (after having twins) to other couples
- John and Luanne Buzzanca decided to use Pamela Snell to carry one of the Davidson/X embryos to term for them to raise as their child
- John filed for divorce right before Jaycee was born
- The court originally ruled Jaycee an orphan even though Luanne wanted custody of her

Surrogacy today

- Mostly positive media coverage
 - Decreased stigma
 - Stories of celebrities using surrogacy are common

Straight celebrities using surrogacy



Gay celebrities using surrogacy



Objections to commercial surrogacy



- Exploits women
- Commodifies children
- Parent/child relationship not suited to contract law
- Lack of regulation and protections for children
- Altruistic surrogacy also problematic

International surrogacy



- Exacerbates exploitation of women
- Legal status of infants
 - Baby's citizenship
 - Intended parents abandoning babies
- Thailand and India banned international surrogacy



What ethical issues are raised by
uterus transplantation?

Uterus transplantation

- First birth from uterus transplantation in 2014 in Sweden
- Clinical trials in UK and Cleveland Clinic
- Avoids some of the ethical concerns with surrogacy



Concerns about uterus transplantation

- Expensive and not life-saving transplant
 - Temporary transplant
- Uterus not regulated by UNOS
- Concerns about risks to donor, recipient, and fetus
- Is there a right to gestate?
 - For ciswomen, for transwomen, for nonbinary individuals

Summary

- Recognize some of the limitations with the current definition of infertility and some of the public's misperceptions about infertility
- Describe some common objections to ART generally
- Discuss some of the ethical considerations of specific ARTs, including fertility preservation

Overarching goal: Be more equipped to discuss the ethics of assisted reproductive technologies

Thank you!

Questions?