Financial Issues Surrounding ART- Insurance Coverage for Families in Poverty

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Abstract

Assisted reproductive technologies (ART) are used in a variety of medical procedures designed to increase a patient's likelihood of conceiving a child (CDC, 2019). There are many such treatments that have successfully helped thousands of couples become parents (Hornstein, 2016). Despite how common these costly procedures are, they are rarely covered by insurance companies (Falloon & Rosoff, 2014). The financial inaccessibility of assisted reproductive technologies exemplify that infertility screening and treatments are often an unviable treatment for low income and minority families (Victor et al., 2010). Many states have passed laws that require states to offer coverage however, laws are unique to each state (Falloon & Rosoff, 2014). We are going to discuss the disparities that arise between people who are able to receive and pay for treatments. Reproductive issues affect people of all socioeconomic backgrounds however, treatment is often limited to those that are able to afford it. We argue that infertility insurance should be mandated to increase access to ART services and help make the distribution for ART more equitable.

Biological Overiew

ART Technologies:

- Intrauterine Insemination (Kevin)
  - Intrauterine insemination fertilizes the egg inside a woman's uterus. This is a more affordable option than IVF, though it has a lower success rate. IUI works best for women trying to get pregnant without a partner, for people with unexplained infertility, and when the man's sperm has issues traveling to the egg--often due to low mobility, but sometimes due to a chemical mismatch between the man's semen and the woman's vaginal fluids. IUI requires just one procedure, during which the sperm is implanted into the woman. Some women opt to take fertility drugs before IUI to increase the number of eggs they produce. Fertility drugs increase the chances of success with IUI

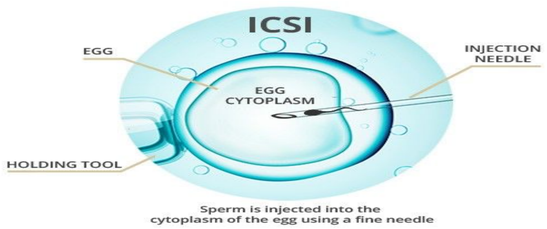
- Frozen Embryo Transfer (Saba)
  - This procedure involves undergoing IVF with a frozen embryo from a previous IVF cycle. Frozen Embryo Transfer is done to reduce the effects of desynchronization.
    - During a healthy pregnancy, progesterone is released causing the endometrial lining to develop and support the fertilized egg. The release of progesterone and the development of the endometrial lining must be synchronized for successful implantation.
    - Sometimes, during IVF, the endometrial lining develops too quickly due to progesterone levels increasing earlier than normal due to ovarian stimulation and is unable to properly support the embryo.
      - FET allows the embryo transfer to be delayed until the next cycle which provides time for hormone levels return to baseline after IVF and reduces the risk of desynchronization.
      - FET can also be used by families who choose to select the gender of the embyo by doing a biopsy and then freezing them.

- Pronuclear stage tubal transfer (PROST) (Saba)
  - Transfer of the fertilized egg into the fallopian tube prior to cell division. This occurs after IVF.
    - This version of IVF has been shown special efficacy in cases of oligospermia and asthenospermia.
      - Benefits of this procedure resulting is its success in the above conditions are the ability to check for normal fertilization, the possible removal of polyploid embryos, and the ability to incubate immature oocytes.

- Intracytoplasmic Sperm Injection (Kevin)
  - Intracytoplasmic sperm injection (ISI) removes one or more eggs from the woman's body. Then a mature egg is injected with a single healthy sperm. When the eggs develop normally, they are transferred back to the woman's body. ISI works best when there are serious sperm issues. For example, a man with very low sperm motility or very few quality sperm might select this option. Sometimes a man has normal sperm count and morphology, but significant DNA damage that decreases fertility or increases the risk of an early miscarriage. ISI allows a doctor to select the healthiest sperm and implant it in the egg. A woman typically takes fertility drugs to boost egg production and normalize her cycle before an ISI implantation.

ART Statistics: (Kevin)

- Use of IVF was associated with a statistically significant increase in preeclampsia, gestational hypertension, placental abruption, placenta previa, and risk of cesarean delivery.
- Ovulation induction was associated with a statistically significant increase in placental abruption, fetal loss after 24 weeks, and gestational diabetes
- Patients who underwent ovulation induction were 2.4 times more likely to have a placental abruption (95% CI 1.3–4.2) and 2.1 times more likely to have a fetal loss after 24 weeks (95% CI 1.3–3.6) compared with controls
- Patients using IVF were 2.7 times more likely to develop preeclampsia (95% CI 1.7–4.4), 2.4 times more likely to have a placental abruption (95% CI 1.1–5.2), 6.0 times more likely to have a placenta previa (95% CI 3.4–10.7), and 2.3 times more likely to undergo a cesarean delivery (95% CI 1.8–2.9) compared with controls



Ethics Regarding Insurance Coverage

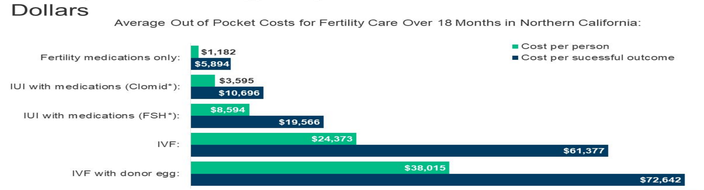
- Will insurance coverage negate social and ethnic disparities?
  - Insurance mandates reveal major social and ethnic disparities
  - There is an 11% chance that low-income women will pursue ART while higher income women are twice as likely
  - Ex: Massachusetts, a state that enacted an insurance mandate, reveals that majority of people accessing services are caucasian and over 60% of infertility patients had an anual income of $100,000.
  - ART services remain unavailable to the poor and uninsured
  - These population have the same or greater prevalence of infertility compared to the financially advantaged.

- Should ART be given priorities over other treatments?
  - Many medical conditions do not kill people but are still covered under insurance
  - Infertilify does impact the quality of life
  - Studies have shown that 50% of women and 15% of men have stated that infertility as the most upsetting events of life

- Why is ART preferable to adoption? Is this legitimate?
  - People value genetic and culture relatedness however, that does not make ART preferable mean to become a parent.
  - Society is also not obligated to mandate insurance to insure that people are able to have genetically related children.
  - There are a large number of children without homes and it can be more affordable than ART
  - Brings social good by giving a child a loving home to grow up in

Figure 3

Fertility Treatments Typically Cost Patients Thousands of Dollars



NOTE: *Clomid and FSH are fertility medications. A successful outcome was defined as a live birth or an ongoing pregnancy at study end. IUI = Intrauterine insemination. IVF = in vitro fertilization. Data is from 398 women from 8 infertility practices in Northern California, followed for 18 months.
SOURCE: Katz et al. Costs of Infertility Treatment: Results from an 18-month Prospective Cohort Study. *Fertil Steril*. 2011. Mar 1;95(3):915-21.

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Insurance Coverage

Background: 10% of American women have received assistance for infertility issues, with around 72,913 babies born through non donor ART procedures.

- With the heightened use of infertility treatments, state laws struggle to create insurance coverage policy for these expensive treatments. The average cost of one cycle of IVF is $12,000 to $17,000. Most state laws specifically exclude artificial insemination and infertility treatment from insurance coverage, causing healthcare inaccessibility for low income families.

Legal Policies:

- 17 US states have laws that require insurers to give coverage for infertility diagnosis and treatment. 15 of these 17 states require insurers to offer infertility treatment coverage.
- California, Louisiana and New York law specifically excludes infertility treatment coverage
- No state medicaid program covers artificial insemination or in vitro fertilization leaving low income families with no coverage.
  - State law requirements do not require employee funded insurance companies to cover infertility treatments. Employee funded insurance covers 60% of Americans.
  - Diagnostic testing services for infertility includes lab testing, semen analysis, pelvic ultrasounds, and/or laparoscopies or hysteroscopies are not considered essential healthcare testing by most private insurance companies.

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Ethical Arguments Supporting Insurance Coverage

- Should ART services be available only to those who can afford it?
  -If genetic reproduction is actually fundamentally important then access to IVF should be independent of from morally irrelevant factors, such as wealth, and should be available to all that benefit from it.
  - Thus, insurance mandate is logical becuase use of the technology would not be determined based on financial status.

- Can insurance coverage decrease associated risks of ART?
  -An attitude of " making the most" out of each IVF cyle is adopted when low- income individuals are paying out of pocket. This leads to implantation of multiple embryos, which then increases risks of complications for both he mother and the infant. Although this is not advised in ASRM guidelines, doctors feel increased pressure to go against guidelines and implant multiple embryos for people that can not afford to have multiple IVF cycles.
  - Insurance coverage would lead both physicians and patients to make the safest decisions rather than feel pressure to make the more affordable decision.

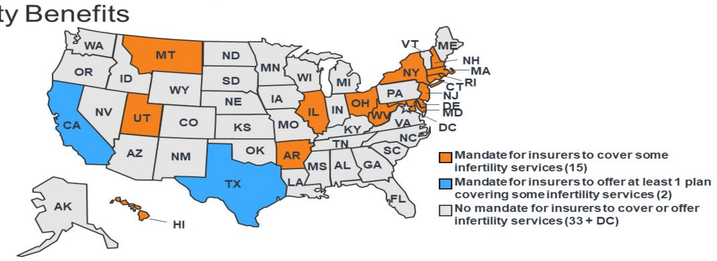
- Is infertility a medical condition?
  - Fertility treatments are not and should not be views as mere lifestyle medicines but rather as medical treatments that can relieve suffering. Although infertility does not kill, many other recognized medical conditions do not as well.

- Infertility diagnostic testing can reveal chronic disease processes such as polycystic ovarian syndrome, testicular and ovarian cancers, pelvic inflammatory disease etc. The financial Inaccessible of ART prevents low income and minorities from receiving proper preventative healthcare.

ithin a cross sectional analysis of racial and ethnic disparities in IVF outcomes, (Fujimoto, 1), the outcomes of a successful birth were significantly reduced for Asian, Black and Hispanic women due to diminished ovarian reserve and ovarian/uterine issues. Women of color suffer at higher risks of uterine dysfunction and would greatly benefit from diagnostic testing for the root pathology of their infertility.

Figure 4

Most States Do Not Require Private Insurers to Provide Infertility Benefits



NOTES: Colorado enacted a mandate to cover law which takes effect in 2022. Mandate to cover = certain private insurers must cover specific infertility services. Nine states (and DC) that do not have a mandate to cover have a benchmark plan that includes at least some infertility coverage for most individual and small group plans sold in that state. Mandate to offer = certain insurers must offer plans with coverage, but does not require employers to choose these plans. States vary in whether mandates apply to large group, small group, or individually purchased plans. State insurance mandates generally do not apply to self-funded plans; 61% of covered workers are in a self-funded plan.
SOURCES: NCSL "State Laws Related to Insurance Coverage for Infertility Treatment," Updated 6/12/19; ASRM "State Infertility Insurance Laws"; Resolve "Infertility Coverage by State."

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