



**Validation**Institute

# 2021 Validation Report

**Review for: Arc Fertility**

**Validation Achieved: Level 2 - Outcomes**

**Valid through March 2022**



# Company Profile

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<b>Category:</b>	Specialty Fertility
<b>Website:</b>	<a href="http://arcfertility.com">arcfertility.com</a>
<b>Public or Private:</b>	Private
<b>Year Established:</b>	1997
<b>CEO:</b>	David Adamson
<b>Company contact:</b>	info@arcfertility.com



## Description:

**ARC Fertility** is the most established national network of carefully selected Centers of Excellence, founded in 1997 and led by globally recognized physicians who put the patient first. Its success providing evidence-based, cost-effective, and affordable care to consumers has been used to create a comprehensive, innovative, administratively easy, employer fertility benefit with superior employee clinical, emotional, and financial experience. The comprehensive digital platform and apps, personalized information and emotional support, and excellent medical care ensures a high-value product for all employees and a seamless fertility journey for those on that path. **ARC Fertility's** customized plan design with no PEPM and managed bundled packages result in validated better outcomes and lower cost that make fertility benefits affordable for all employers. Employers are enabled to meet their DEI and talent retention and recruitment goals and to build a family-friendly culture.

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# Claim Assertion for Validation

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The **ARC® Fertility** Program is a suite of evidence-based, packaged, bundled clinical, surgical, and laboratory services focused on single embryo transfer and good outcomes. The program results in fewer multiple births than the national average and lower costs.

## Intervention link to outcome

- **State the outcome being measured**

The ARC® Fertility program results in fewer multiple births than the national average and lower costs.

- **Detail the intervention.**

The ARC® Fertility Program is a comprehensive suite of evidence-based, packaged, bundled clinical, surgical, and laboratory services focused on single embryo transfer and good outcomes. Multi-cycle packages, predictable pricing, discounted and free services, and financing reduce cost, make treatment affordable and thereby increase access to care.

The evidence-based packages and their design that promotes single embryo transfer give the best chance of delivering a healthy baby. For employers, the program's flexible contribution amount, from zero dollars to full subsidy, the absence of PEPM fees, payment only when services are used, and simplicity of implementation make fertility benefits affordable, creates access to safe and cost-effective care for their employees.





- **Does the applicant discuss published literature or other credible source demonstrating correlation between intervention and outcome? If yes, describe the correlation and the source cited by applicant. If no, does the literature exist to demonstrate a correlation between intervention and outcome?**

The ARC® Fertility program results in fewer multiple births than the national average and lower costs.

- **Detail the intervention.**

Pregnancies with the delivery of twins cost approximately 5 times as much when compared with singleton pregnancies; pregnancies with delivery of triplets or more cost nearly 20 times as much.

- Lemos EV, Zhang, D, Van Voorhis BJ, Hu XH. Healthcare expenses associated with multiple vs singleton pregnancies in the United States. *Am J Obstet Gynecol.* 2013 Dec;209(6):586.e1-586.e11. doi: 10.1016/j.ajog.2013.10.005. Epub 2013 Nov 13.

Boulet, et. al. used linked assisted reproductive technology (ART) surveillance and birth certificate data to compare ET practices and perinatal outcomes for a state with a comprehensive mandate requiring coverage of IVF services versus states without a mandate. Lack of an insurance mandate was positively associated with triplet/higher order deliveries (1.0% vs. 2.3%), preterm delivery (22.6% vs. 30.7%), and low birth weight (22.3% vs. 29.5%).

- Boulet SL, Crawford S, Zhang Y, Sunderam S, Cohen B, Bernson D, McKane P, Bailey MA, Jamieson DJ, Kissin DM. "Embryo transfer practices and perinatal outcomes by insurance mandate status." *Fertil Steril.* 2015 Aug;104(2):403-9. e1. doi: 10.1016/j.fertnstert. 2015.05.015. Epub 2015 Jun 11.





Chambers, et. al. systematically quantified the impact of consumer cost on assisted reproduction technology (ART) utilization and numbers of embryos transferred. Researchers found a decrease in the cost of a cycle of 10 percentage points of disposable income predicts a 5.1% increase in single-embryo transfer cycles. The relative cost that consumers pay for ART treatment predicts the level of access and number of embryos transferred. Policies that affect ART funding should be informed by these findings to ensure equitable access to treatment and clinically responsible embryo transfer practices.

- Chambers GM, Hoang VP, Sullivan EA, Chapman MG, Ishihara O, Zegers-Hochschild F, Nygren KG, Adamson GD. The impact of consumer affordability on access to assisted reproductive technologies and embryo transfer practices: an international analysis. *Fertil Steril*. 2014 Jan;101(1):191-198.e4. doi: 10.1016/j.fertnstert.2013. 09.005. Epub 2013 Oct 21.





# Method / Calculation / Examples

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The analysis compared the ratio of Assisted Reproductive Technology (ART)-assisted deliveries of twins, of which at least one is alive (or higher order multiples such as triplets) to the total number ART-assisted births in the US in 2017. The national average was then compared with the same data for ARC® Fertility patients.

Savings was calculated by estimating the cost increment of twin pregnancies over singleton pregnancies. This cost was then applied to the ARC® Fertility Program rates of singleton and higher multiple pregnancies and compared to the national rates.

## **Data Source**

- **Describe the data source**

National rates of singleton and twin births: Society for Assisted Reproductive Technology (SART) data as submitted to the Centers for Disease Control and Prevention (CDC) using standard national definitions of assisted reproductive technologies live birth and multiple births. The database is estimated to include 95% of all ART cycles performed. Data is reported prospectively and validated by SART.

ARC® rate of singleton and twin births: Internal ARC® Fertility data of cost per package as described in contractual agreements with ARC® Fertility Network clinics.

Cost of singleton versus twin pregnancies: Lemos et al 2013 study cited. (Point estimate was used for Table 1)



- **Did the applicant have adequate data from a credible, reliable source?**  
Yes. SART contains records for 255,968 Assisted Reproductive Technology (ART) cycles and the ARC® Fertility database recorded 51,766 cycles. SART recorded birth outcomes for 33,026 patients and ARC® Fertility documented 3,602 live births.
- **How is the data source appropriate for the outcome being measured?**  
The data source is a national standard and documents the outcomes of live births for all women who became pregnant through ART.

### Methodology

- **Describe the evaluation methodology, i.e. trend from pre- to post-, comparing similar groups, etc.**  
Compared total number of ART cycles performed in the US and total number of deliveries resulting in the birth of twins, of which at least one is alive (or higher order multiples such as triplets) in 2017 with the same data on ARC® Fertility patients.
- **Did the applicant collect and manage data in accord with standard evaluation methodology? Comment on any issues with compiling the measure, such as missing or incomplete data or lack of data on non-participants.**  
Yes.



# Findings & Validation

In 2017, ARC®’s multiple birth rate was 9.8% in women age <35 compared to 12.8% for all clinics reporting to Society for Assisted Reproductive Technology (SART). Twin pregnancies cost on average \$83,000 more than singleton pregnancies [1]. At the national rate of multiple births, ARC®’s program would have had approximately 108 more twin births. The lower rate of multiples in ARC®’s program, which performs more than 20% of all ART cycles in the U.S., means that ARC®’s employer clients avoided \$8.9 million in payments. See Table 1 for summary.

**Table 1:** 2017 Data For SART and ARC® Fertility Program

	Singleton birth rate	Twin and higher multiples rate (Women < 35)	# of patients	ARC® multiple births avoided
ARC® Fertility	90.20%	9.80%	3,602	108.1
SART/ national average	87.20%	12.80%	N/A	N/A





# Limitations

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As with any observational study, results may be affected by patient selection; ARC® fertility clinics may attract a population that differs from the general population. Other factors that are not or cannot be measured may also be affecting outcomes.





# Validation and Credibility Guarantee

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**Arc Fertility** achieved level 2 validation for Outcomes. Validation Institute is willing to provide up to a \$25,000 guarantee as part of their Credibility Guarantee Program. To learn more, visit

<https://validationinstitute.com/credibility-guarantee/>.

## Level 1 - Savings

Can produce a reduction of health care spend including the cost of the provider. Product/solution has produced, and replicated a lower cost for healthcare overall or a specific component of healthcare

## Level 2 - Outcomes

Product/solution has measurably “moved the needle” on an outcome (risk, hba1c, events, employee retention, etc.) of importance.

## Level 3 - Metrics

Claim is made that – with sourced, overridable assumptions linked to peer-reviewed or government sources

## Level 4 - Contractual Integrity

No outcomes or savings has been shown, but vendor is willing to put a part of their fees “at risk” as a guarantee





**Validation Expiration: March 2022**

# CERTIFICATE OF VALIDATION

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**Applicant:** **ARC Fertility**  
20195 Stevens Creek Blvd #100  
Cupertino, CA 95014

**Product:** The ARC® Fertility Program

**Claim:** Using the ARC Fertility Program results in fewer multiple births than the national average and lower costs.

**Validation Achieved:** **Level 2 - Validated for Outcomes**

**Validation Award Date:** March 2021

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**Linda Riddell**  
**VP, Population Health Scientist**  
**Validation Institute**

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**Benny DiCecca**  
**Chief Executive Officer**  
**Validation Institute**





# About Validation Institute

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**Validation Institute** is a professional community that advocates for organizations and approaches that deliver better health value - stronger health outcomes at lower cost. We connect, train, and certify health care purchasers, and we validate and connect providers delivering superior results. Founded in 2014, the mission of the organization has consistently been to help provide transparency to buyers of healthcare.

