

U.S. Fertility Clinics & Infertility Services: An Industry Analysis (August 2009)

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| * Causes of infertility: discussion of main reasons for infertility in men and women, treatment methods (HSG procedures, lap and dye procedures – description, cost, estimated number of procedures). Tubal reversal surgeries (description of, success rates, costs, percent of women having procedure, estimated number of surgeries). | |
| * IVF procedures: discussion of procedure, cost. GIFT procedures: discussion of procedure, cost, number of procedures. | |
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| * 2009 market outlook & forecast : discussion of key factors: recession, healthcare reform, small clinics vs. IntegraMed performance, demographics, Marketdata forecast of IVF volume, \$ value of the market. | |
| * 2009-2013 Forecast : Factors affecting current and future industry growth: IVF tourism, Economic recovery, public policy, improved success rates, etc. | |

Tables:

- Size of fertility services industry – 1999: diagnostic & therapeutic procedures (no. performed, avg. cost, estd. \$ value: office consultations, semen analysis, hormone evaluations, tubal reversals, IVF & GIFT procedures, fertility drugs, donor eggs, donor sperm, surrogacies)
- Size of fertility treatment industry: 2004 (Debra Spar, Harvard Business School book)
- Top 21 U.S. fertility clinics, by no. of IVF cycles performed: 2002, 2006
- Size of fertility services industry – 2008: diagnostic & therapeutic procedures (no. performed, avg. cost, estd. \$ value) – breakdowns as above
- Estimated historical size of mkt., by segment: 1988, 1995, 2000, 2004, 2006, 2008
- **Status of the European Market**, report of ESHRE, IVF volume in 2005, percent distribution of IVF vs. ICSI (1997-2005), which nations infertile couples come from, reasons, reimbursement ESHRE headquarters address.

Customer Demographics

43-57

- * Summary and discussion of number and percent of infertile female population in the U.S. (U.S. Census Bureau data, American Society for Reproductive Medicine)
- * Reasons why the market is largely untapped: how price deters most candidates
- * Birth control trends: analysis of why birth control rises during recession and birth rates fall, effect of current recession
- * IVF tourism increases for European couples due to U.S. economy and progressive laws
- * Health status: percent of women age 18-44 reporting receiving infertility services (by race, age, type service)
- * Fertility of American women: 2006 (U.S. Census Bureau data – highlights of the report) (birth rates and fertility rates by race, education, state, income), level of childlessness by age, race
- * Completed fertility for women 40-44 years old
- * Current fertility rates
- * Marital status and cohabitation
- * Citizenship status, race and Hispanic origin
- * Educational attainment
- * Birth rates: data for 2006 – report highlights regarding number of births, birth rate for teenagers, mean age of mother, percentage of mothers with prenatal care, total births in the United States, crude birth rate, general fertility rate

Tables:

- Women aged 18-44 who have ever received infertility services, by race/ethnicity, 2002
- Women aged 18-44 who have had an infertility related medical appointment in the past year, by age, 2002
- Number of married women 15-44 years of age and percentage who have had a sterilizing operation by type of operation and percentage whose husband has had a vasectomy, by selected characteristics: United States 2002
- Number of women 15-44 years of age, percentage who have ever received any fertility services, and percentage who have ever received the specified infertility

Fertility Clinics

58-65

Fertility Clinic Business Operating Ratios: Results of custom Marketdata survey
(Aug. 2000, June-July 2009)

2009 Survey

- Number of new patient visits per year
- Average cost of new patient consult
- Average cost of a semen analysis
- Average cost of a hormone evaluation
- Average cost of a HSG
- Average cost of a tubal reversal surgery

2000 Survey

- Location (MD practice vs. hospital, %)
- Title of Lab Director (MD, PhD)
- Full-time staff (clinical, admin. Laboratory)
- Starting salaries for clinic job functions (embryologist, lab director, HCL director, LPN, RN, lab technician)
- Annual Patient volume for: new patient visits, IUIs, surgical procedure, retrievals
- Prices charged for services (see above, plus semen analysis, ultrasound, pkg. Price for IVF - % by price ranges)
- Percent of revenues paid by insurance
- Most important issues for clinics over next three years.

Major Competitor Profiles

66-80

Summary

Tables:

- Ranking of top 21 IVF clinics, by no. of cycles performed: 2002 & 2006
- Ranking of top 21 IVF clinics, by estim. no. of cycles performed in 2008, 2008 estd. revenues

Descriptions of activities, specialties, mission, 2006-2008 revenues if available, address, for:

- Resolve
- Allan Guttmacher Institute
- Genetics and IVF Institute
- IntegraMed America, Inc.

Findings of 2006, 2007 & 1997 CDC Surveys on Assisted Reproductive Technology Success Rates

81-125

- * Preliminary findings of 2007 survey: success rates, by age of woman, fresh & frozen embryos from nondonor eggs, donor eggs, percent of clinics offering services by type.
- * Discussion/analysis of: type ART procedure used, pregnancy success rates, ART cycles using frozen embryos, ART cycles using donor eggs, ART cycles using nondonor eggs and embryos, success rates by women's age

Extensive tables and analyses of 2006 report:

- * Total no. of ART procedures performed, % by type.
- * No. of infants born through ART
- * Percent multiple birth deliveries
- * Percent of ART transfers resulting in a pregnancy.

Text, analyses & discussion, tables covering these topics: (1996-2006 trend data)

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- Is the use of ART increasing?
- Have there been changes in the type of ART cycles performed among women who used fresh or frozen nondonor eggs or embryos?
- Improvements in % of transfers resulting in live/singleton births among women using fresh/frozen eggs (by age group)
- Has the no. of embryos transferred in fresh non-donor cycles changed?
- Has the no. of embryos transferred in each ART cycle changed for women under 35?
- Have there been improvements in ART success rates by no. of embryos transferred?
- Has the % of multiple-infant live births changed?
- Has the % of singletons, twins and triplets or more changed for ART cycles using fresh non-donor eggs or embryos?

2006 survey Results (analysis and discussion of results)

- Where are U.S. ART clinics located, how many cycles performed in 2006?
- How old were women using ART in 2006?
- What types of ART cycles used in United States in 2006?
- Why are some ART cycles discontinued?
- How is the success of ART measured?
- What % of ART cycles result in pregnancy?
- What's the risk of a multiple-fetus pregnancy?
- Using ART, what are the risks for preterm birth?
- Using ART, what is the risk for low-birth-weight infants?
- Do ART success rates differ by age of woman?
- How does a woman's age affect chances of progressing through stages of ART?
- What are the causes of infertility among couples using ART?
- How many women who use ART have previously given birth?
- Success rates for women who had both previous ART and previous births.
- Specific types of ART performed among women who used fresh non-donor eggs or embryos.
- Success rates for couples with male factor infertility when ICSI is used?
- How many embryos transferred in an ART procedure?
- Is an ART cycle more successful if more embryos used?
- Is an ART cycle more successful if embryos transferred on day 5?
- How does the multiple-infant birth risk vary by day of embryo transfer?
- Risks of multiple-infant live birth for day 3 and day 5 embryo transfers.
- Success rates for women using gestational carriers.
- How is the clinic size related to success rates?
- Success rates for ART cycles using frozen nondonor embryos.
- Risk of having multiple-fetus pregnancy or live birth from ART cycles using frozen nondonor embryos.
- Are older women undergoing ART more likely to use nondonor eggs or embryos?
- How do success rates differ between women using frozen donor embryos and those using fresh donor embryos?

European ART Survey Data (from ESHRE)

- Total IVF and ICSI cycles reported for 30 nations, by type: discussion and results, pregnancy rates, differences between countries, single/double/triple embryo transfers, ART cycles per nation, % IVF vs. ICSI, trends, comparisons to USA
- Preimplantation genetic diagnosis/screening in 13 nations.

Directory of 400+ Fertility Clinics in the U.S.

126-175

* Name, address, phone, fax, accreditation

The Fertility Drugs Market

176-180

- *Summary of the global fertility drugs market: estimated size, key competitors (Organon, Merck Serono, Ferring)
- *Outlook and sales results from Merck's 2007 & 2008 annual reports for North America versus rest of world, outlook for Gonal-f and Pergoveris
- *Estimated market share for Merck Serono, \$ sales
- *Discussion of increase in illicit drug market developing between buyers and sellers
- *Marketdata estimates of fertility drug sales: 1995 – 2009, four year forecast.

Sperm Banks and Egg Donors

181-186

Sperm Banks

- * Summary and discussion: number of U.S. sperm banks, typical fees, main activities
- * How the process works: requirements and screening of sperm donors, who typical donors are, fees, contracts
- * Estimated value of the market
- * Market trends
- * Major competitors: Cryos International Sperm Bank (Denmark), California Cryobank – typical procedures and requirements of donors

Egg Donation

- * Discussion of egg donors, fees, who they are, differentiated pricing structure, estimated market value

Surrogacy Programs

187-188

Discussion of the need for it, mkt. size, fees, etc.

Tables

- No. of women receiving fertility services, by selected characteristics (1995)
- Childless women and children ever born, by race, age, marital status (1998)
- Total US fertility rate (1960-1997), projected rates by age group (to 2010)

Industry Reference Directory

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- * List of adoption and fertility services industry trade groups, associations, surveys, consultants, and other sources.