



# Developing Curriculum to Increase Knowledge of Women Infertility

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## INTRODUCTION

Infertility is defined as not being able to get pregnant (conceive) after one year (or longer) of unprotected sex. It has become a silent growing issue amongst women. With increased political pressure concerning Women’s Health Rights and the overturn of Roe v. Wade, there is an immediate need to enhance knowledge on Women’s Reproductive Health and Infertility. Literature also indicates that females lack sufficient knowledge on reproductive health.<sup>1-4</sup> The purpose of this initiative is to educate community members and organizations on topics related to Women’s Health.

## METHODS

Curriculum is being developed to explore key areas of Women’s Health and Infertility. This includes general definition of infertility, potential causes, genetic disposition, reproductive health, treatments, impact on community, and women’s health ethical issues. These will be accompanied by talks addressing any concerns. The curriculum will also provide information for those interested in further assistance and resources.

## Women Infertility Curriculum

**Infertility:** According to the Centers for Disease Control and Prevention, Infertility is defined as not being able to get pregnant (conceive) after one year (or longer) of unprotected sex.

**Potential Causes of Infertility:** There are many factors contributing to infertility. Factors include, but not limited to: Implantation failure, Infection, failure to ovulate, Reproductive Health Conditions, and Lifestyle & Environmental factors. Co-morbidities can also cause complications to reproductive health.

**Reproductive Health Conditions:** A variety of reproductive health conditions are thought to contribute to Infertility including: 1) Polycystic Ovarian Syndrome (PCOS), 2) Endometriosis, 3) Uterine Fibroids, 4) Pelvic Inflammatory Disease (PID)

**Lifestyle & Environmental Factors:** Obesity and Smoking

**Co-morbidities:** The presence of more than one distinct condition or disease in an individual. Those associated with infertility are: 1) High cholesterol, 2) Anxiety, 3) Depression, 4) Ovarian Cysts, 5) Hyperandrogenism and 6) Insulin resistance.

**Treatments:** Approximately 1 in 8 women aged 15 to 49 years receive infertility services. Infertility treatment depends on the cause, your age, how long you’ve been infertile and personal preferences. Due to its complexity, Infertility treatment can involve significant financial, physical, psychological and time commitments. Treatments range from In Vitro Fertilization, Hormone Therapy, or Surgery. Medication options are as follows: 1) Clomiphene Citrate, 2) Gonadotropins, 3) Metformin, and 4) Letrozole. Surgical Treatments: 1) Laparoscopic/ Hysteroscopic Surgery and 2) Tubal Surgery.

**IVF:** This involves retrieving mature eggs, fertilizing them with sperm in a dish in a lab, then transferring the embryos into the uterus after fertilization. IVF is the most effective assisted reproductive technology. An IVF cycle takes several weeks and requires frequent blood tests and daily hormone injections.

**Clomiphene Citrate:** drug stimulates ovulation by causing the pituitary gland to release more Follicle Stimulating Hormone and Luteinizing Hormone, which stimulate the growth of an ovarian follicle containing an egg. Usually used for woman younger than 39 who do not have PCOS.

**Gonadotropins:** stimulate the ovary to produce multiple eggs. Gonadotropin medications include human menopausal gonadotropin or hMG (Menopur) and FSH (Gonal-F, Follistim AQ, Bravelle).

**Metformin:** used when insulin resistance is a known or suspected cause of infertility, usually in women with a diagnosis of PCOS. Metformin (Fortamet) helps improve insulin resistance, which can improve the likelihood of ovulation.

**Community Impact:** Increasing Community knowledge of Women’s Reproductive Health issues and Infertility; including potential causes and treatments available.

**Women’s Health Ethical Issues:** Overturning of Roe V. Wade, created the immediate need to educate the masses on Reproductive Health Issues. As politicians, who are majority male and conservative, overturning legislature directly related to women’s health.

## RESULTS

The curriculum developed includes information on causes of Infertility and Reproductive Health such as Pelvic Inflammatory Disease, Endometriosis, Polycystic Ovarian Syndrome, and Uterine Fibroids. In addition, curriculum covers treatment options for infertility including In Vitro Fertilization (IVF), Hormone Therapy, and other assisted reproductive health technologies.

## CONCLUSION

Based on the designed curriculum offered to the public, it is expected that community knowledge will be enhanced regarding Infertility and Reproductive Health. Participants will be evaluated in order to determine impact of curriculum and changes needed to enhance it. After evaluation of this course, improvements will be made to provide information for a larger group of community members, in a broader manner.

## REFERENCES

- 1.Center for Disease Control and Prevention. Infertility FAQ’s. 2022. <https://www.cdc.gov/reproductivehealth/infertility/index.htm>.
- 2.National Institute of Health. What are possible causes of female infertility. <https://www.nichd.nih.gov/health/topics/infertility/conditioninfo/causes/causes-female#>.
- 3.Carson SA, Kallen AN. Diagnosis and Management of Infertility: A Review. *JAMA*. 2021;326(1):65–76. doi:10.1001/jama.2021.4788
- 4.Female Infertility. Mayo Clinic. <https://www.mayoclinic.org/diseases-conditions/female-infertility/diagnosis-treatment/drc-20354313>