

## Abstract

**Question:** Do women who seek infertility care from a generalist provider differ in terms of characteristics and outcomes from women who seek care initially from a fertility subspecialist?

**Background:** Infertility is common and involves treatments that are medically invasive. A better understanding of generalist providers' role in the treatment of infertility may lead to opportunities to provide balanced management.

**Methods:** Analysis of mixed-methods questionnaire data of a retrospective cohort study of women with primary infertility.

**Results:** Most women saw a generalist provider first, and these women were less likely to receive IVF, equally likely to have a live birth, and had similar times to pregnancy as women who presented first to a fertility subspecialist.

**Conclusions and Impact:** Generalist providers are uniquely positioned to promote a balanced management of infertility.

## Introduction

- **Infertility is common**, with prevalence estimates ranging from 7.4% of married women of reproductive age to 15.5% of women who are trying to conceive.
- **Infertility involves treatment methods that can be medically invasive** and are associated with a number of health implications for resulting children.
- **A better understanding of the role of generalist providers** in the management of infertility may lead to opportunities to promote balanced management.

## Methods

- Analysis of mixed-mode questionnaire data from the Fertility Experiences Study, an NIH-funded retrospective cohort study.
- Women were recruited from the general population through linked marriage, live birth, and fetal death records to identify women who were married for 2-5 years with no record of a birth as of 2005 or 2009 (index dates).
- Eligibility criteria included Utah residence, 12+ months at risk for pregnancy with same male partner, and no pregnancies as of index date.
- Women were asked about treatment choices and time to pregnancy from the time they first were at risk for pregnancy through the interview date (conducted 7/2010 - 7/2012).
- Data were analyzed using Stata, comparing outcomes based on initial provider type.

## Results

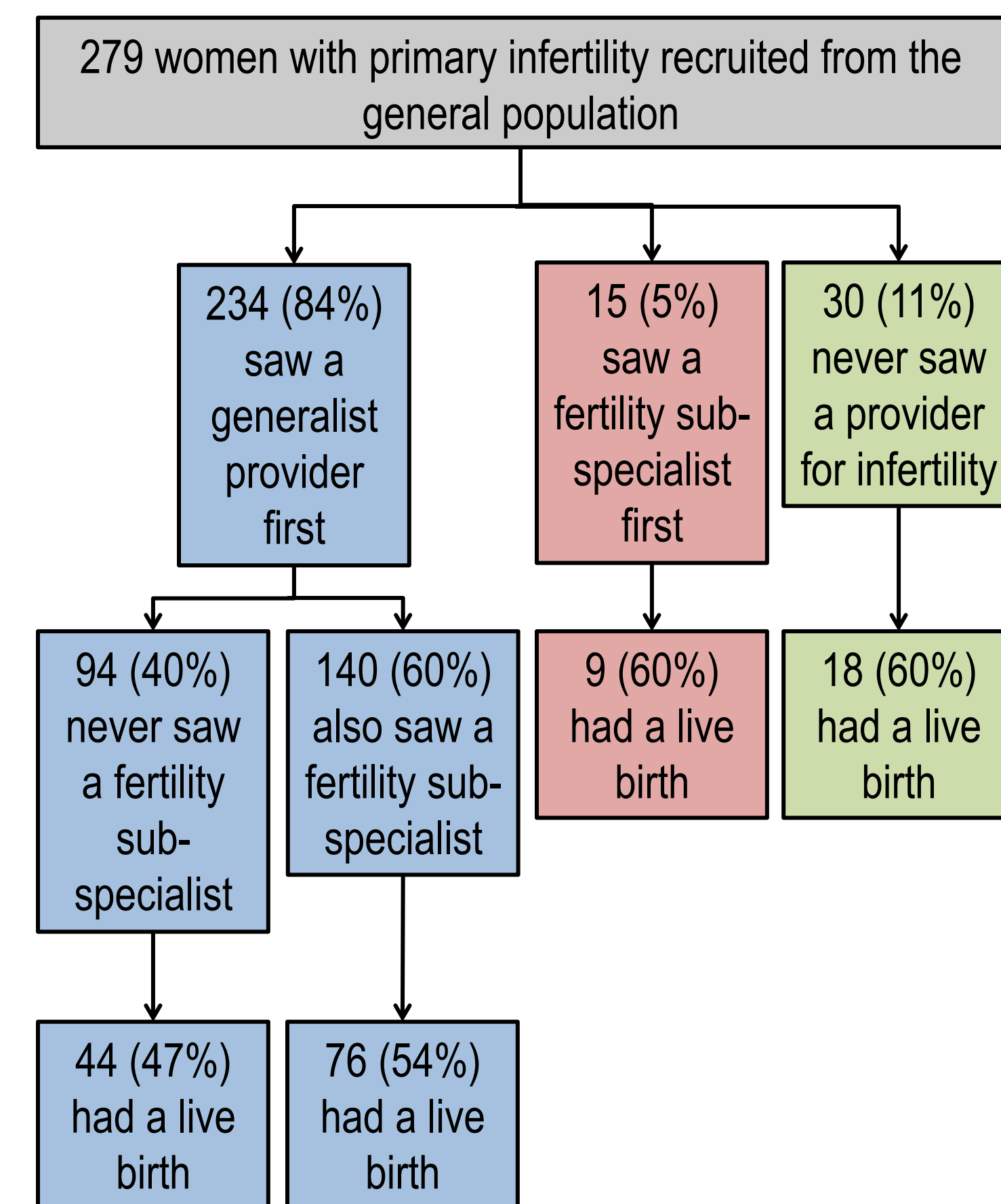


Figure 1: A majority of women (84%) saw a generalist provider first. There was no statistically significant difference in the proportion of women who had a live birth ( $\chi^2 p=0.51$ ).

Generalist provider = Family physician, OB/GYN, physician assistant, or nurse practitioner  
Fertility subspecialist = Reproductive endocrinology and infertility specialist

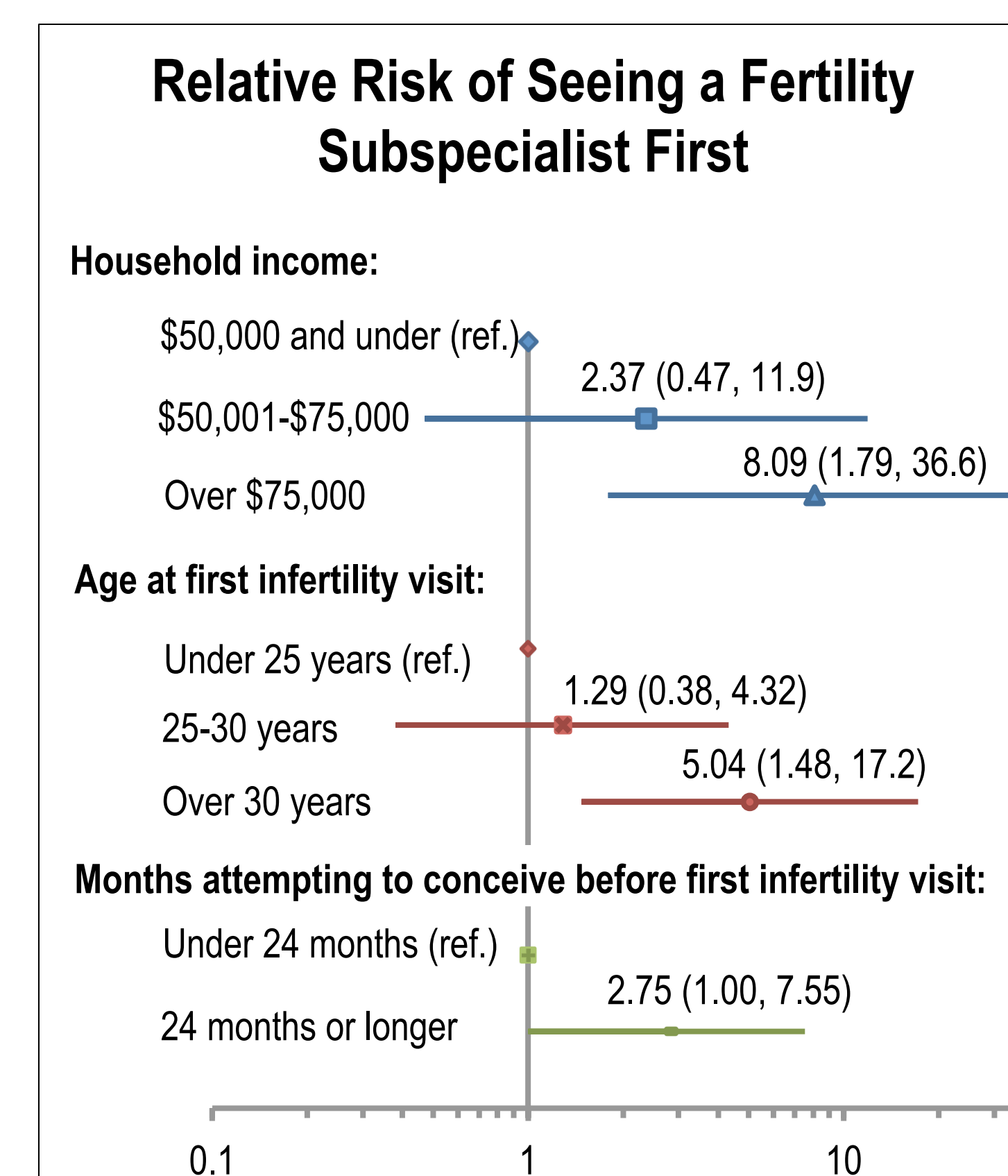


Figure 2: Higher income, older age, and longer duration trying to conceive were associated with an increased likelihood of presenting to a fertility subspecialist first.

## Time to Pregnancy Leading to Live Birth

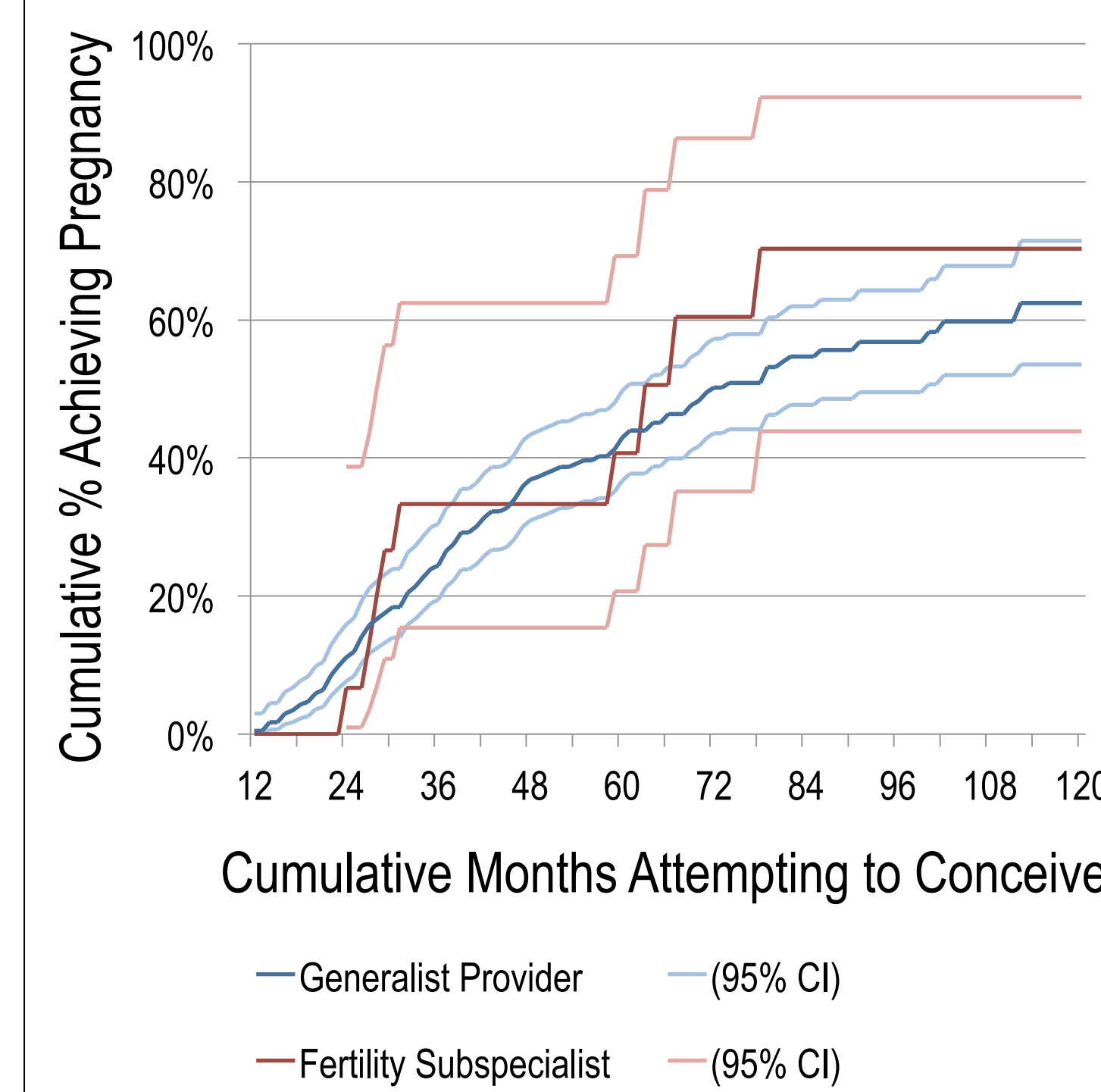


Figure 3: There was no statistically significant difference in time to pregnancy based on first provider type.

## Outcomes of women who presented first to a generalist, compared with women who presented first to a subspecialist

### Odds Ratio of Receiving IVF (95% CI)

Unadjusted	0.20 (0.07, 0.60)
Adjusted*	0.17 (0.05, 0.57)

### Hazard Ratio of Conceiving (95% CI)

Unadjusted	0.85 (0.43, 1.67)
Adjusted*	0.80 (0.38, 1.69)

\*Adjusted for household income, age at first infertility visit, and months attempting to conceive before first infertility visit.

Table 1: Presenting first to a generalist provider was associated with a decreased likelihood of receiving in vitro fertilization (IVF) after controlling for potential confounders.

## Conclusions and Discussion

- In this population-based sample of women with primary infertility, presenting first to a generalist provider was associated with a decreased likelihood of receiving IVF and a similar time to pregnancy when compared with women who presented first to a fertility subspecialist.
- Generalist providers are frequently the first point of care for women with difficulty conceiving and are uniquely positioned to promote a balanced management of infertility.

### Generalist providers are well positioned to:

#### Increase quality

- Identify patients before or soon after they begin attempting to conceive, and identify patients who are at increased risk of infertility.
- Help patients optimize the chance of conceiving naturally.
- Collaborate with patients to lay out an overall plan for workup and timing of referral if necessary, individualized to patients' needs and values.
- Help patients access resources and navigate the healthcare system, and decrease fragmentation through communication and follow-up.

#### Decrease costs

- Initiate infertility care and workup in a potentially lower-cost setting.

#### Improve access

- Reach patients who, as a result of health care reform efforts, may now have increased access to primary care without increased access to subspecialty infertility care.

**Study strengths:** Large sample size, population-based recruitment, use of validated questionnaire

**Study limitations:** No differentiation between different types of generalists, self-reported provider type, limitations in generalizability

## Acknowledgements

I would like to thank Dr. Joseph Stanford, Dr. Sara Simonsen, and Dr. Jessica Sanders for their continuous support and guidance. Funding for the Fertility Experiences Study was provided by the Eunice Kennedy Shriver National Institute of Child Health and Human Development, R21 HD060213-01A1.