

Introduction

- Infertility is a common problem, with multiple underlying causes.
- **Natural Procreative Technology (NPT)** is a systematic approach to optimize normal reproductive function so pregnancy can occur *in vivo*.

NPT is based on

- 1) women's observation of **fertility biomarkers** for ovulation and the "fertile window" (with Creighton Model charting)
- 2) **protocols for medical evaluation and treatment** to improve reproductive function

Objectives

The international NaProTechnology Evaluation and Surveillance of Treatment (iNEST) study aims to determine

- 1) characteristics of couples seeking NPT treatment
- 2) live birth rates over time for patients who are treated with NPT or other treatments for infertility or history of miscarriage

Methods

Longitudinal Cohort

- Couples presenting with goal of child
- Main outcome: cumulative live births
- 2006-2016

Follow-up

- Up to 3 years
- **Clinics** provide NPT treatment information and outcomes
- **Participating couples** complete online questionnaires (women's and men's versions)

The cumulative proportion with live birth was related to woman's age, parity, time trying, prior IVF or AI, and surgery



Table 1: Participants

	Enrolled Number	Mean woman's age (Range)	Mean years trying (STD)	Any pelvic procedure %	Prior pregnancy %	Any pregnancy in study %	Any live birth in study %
Total	834	34.0 (19-47)	3.7 (3.2)	21.9%	46.3%	56.7%	44.2%

Fig 1: Cumulative probability of live birth by woman's age

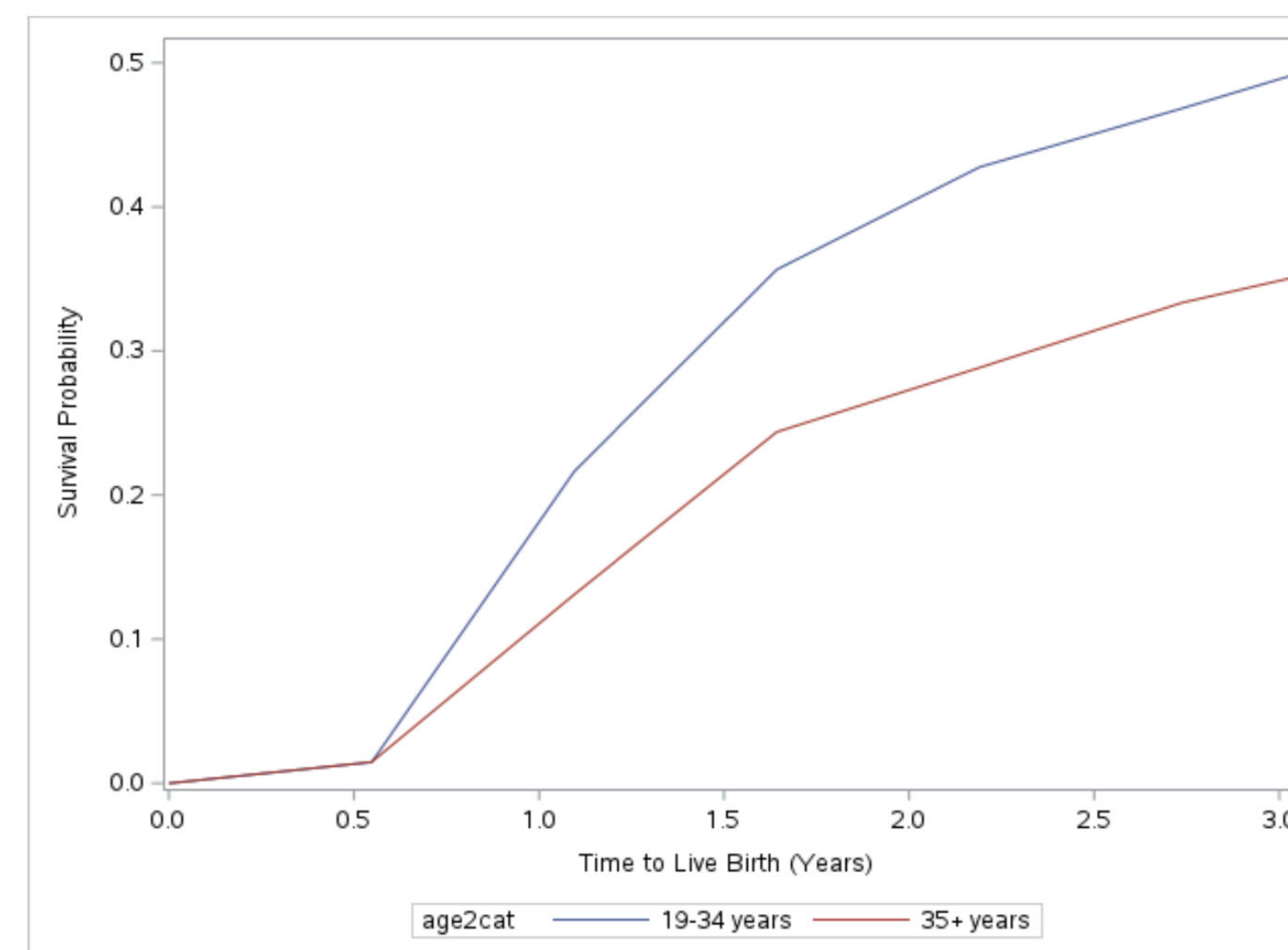


Fig 2: Cumulative probability of live birth by prior live birth

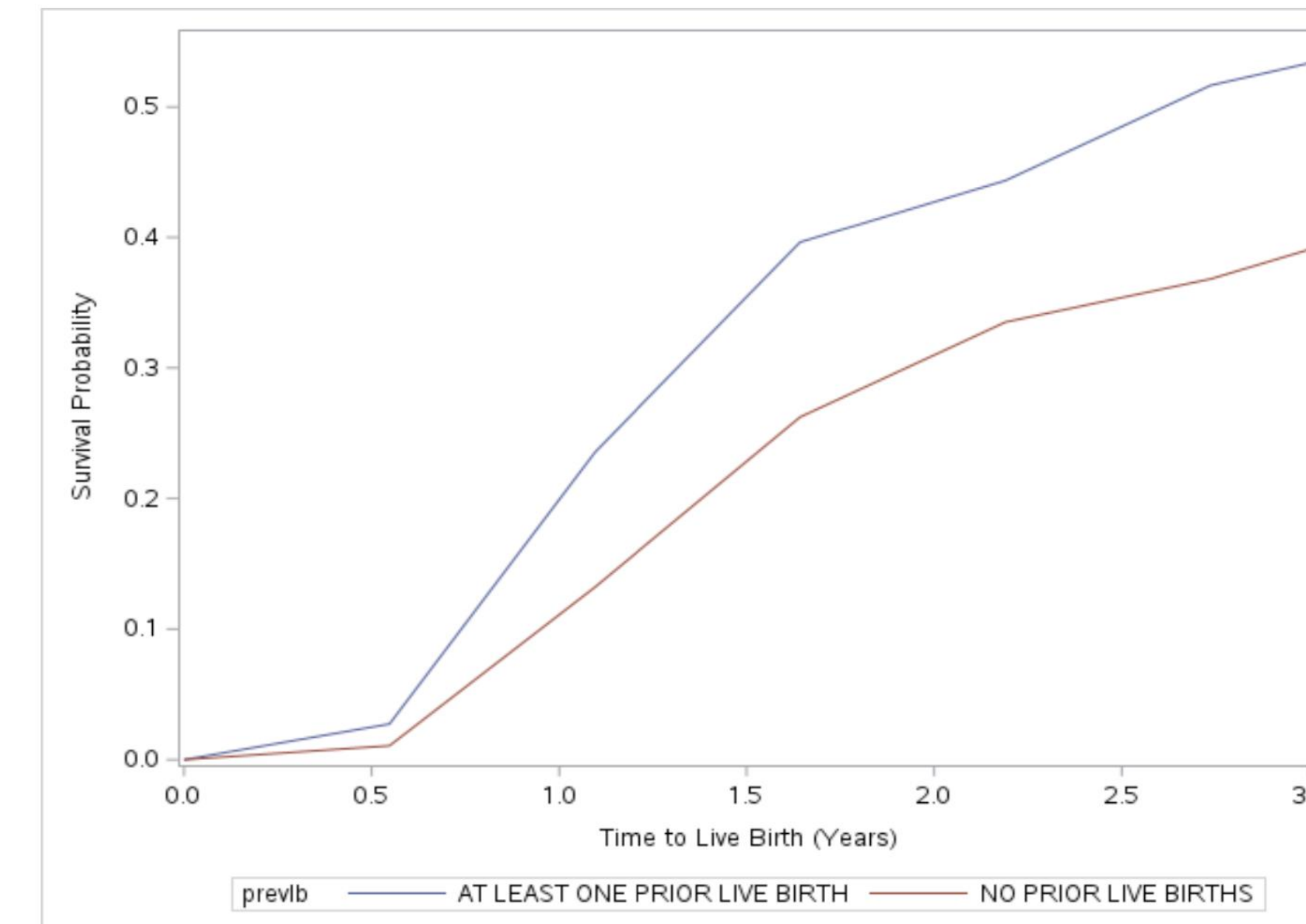


Fig 3: Cumulative probability of live birth by prior time trying

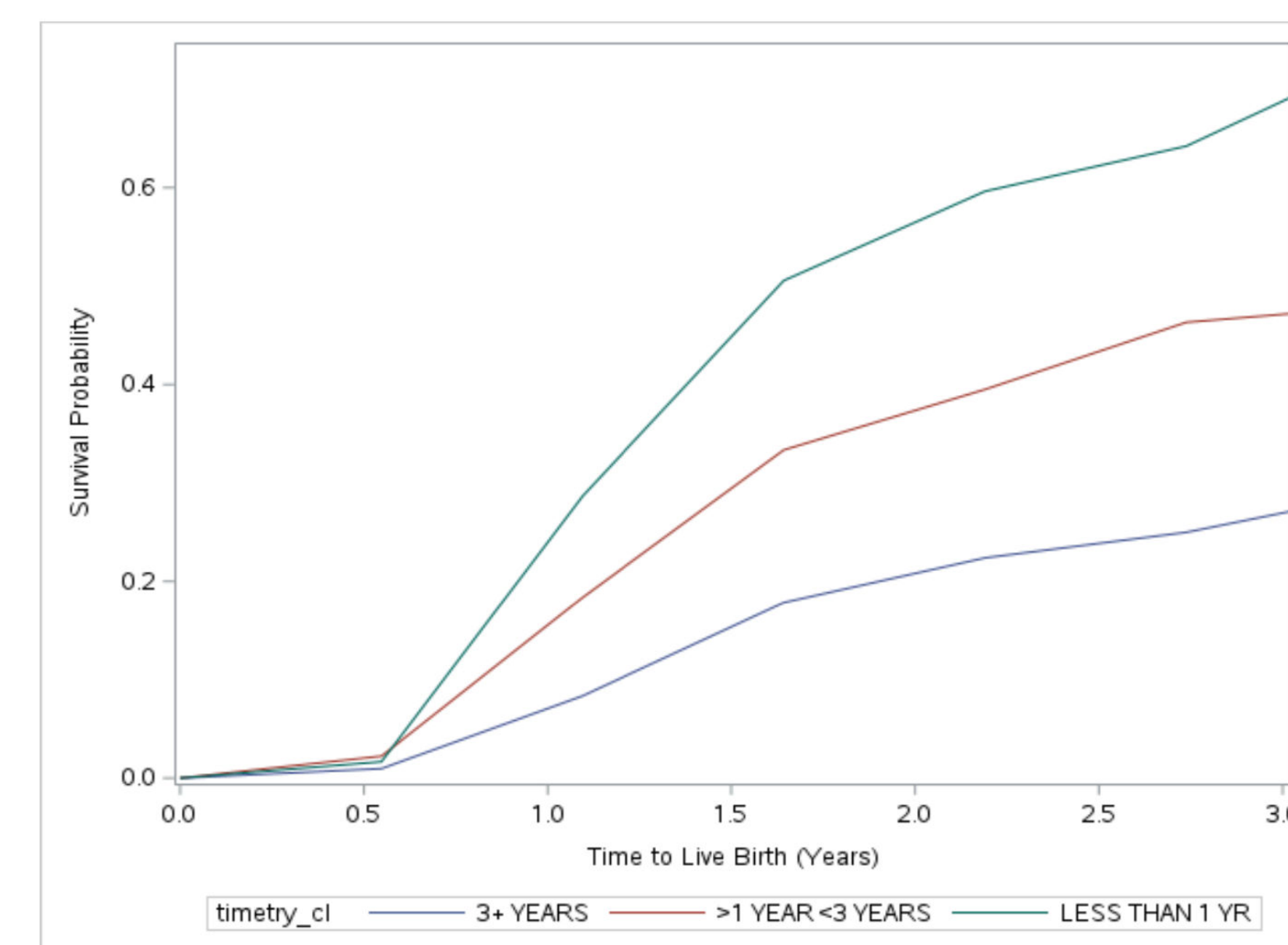


Fig 4: Cumulative probability of live birth by prior IVF or AI

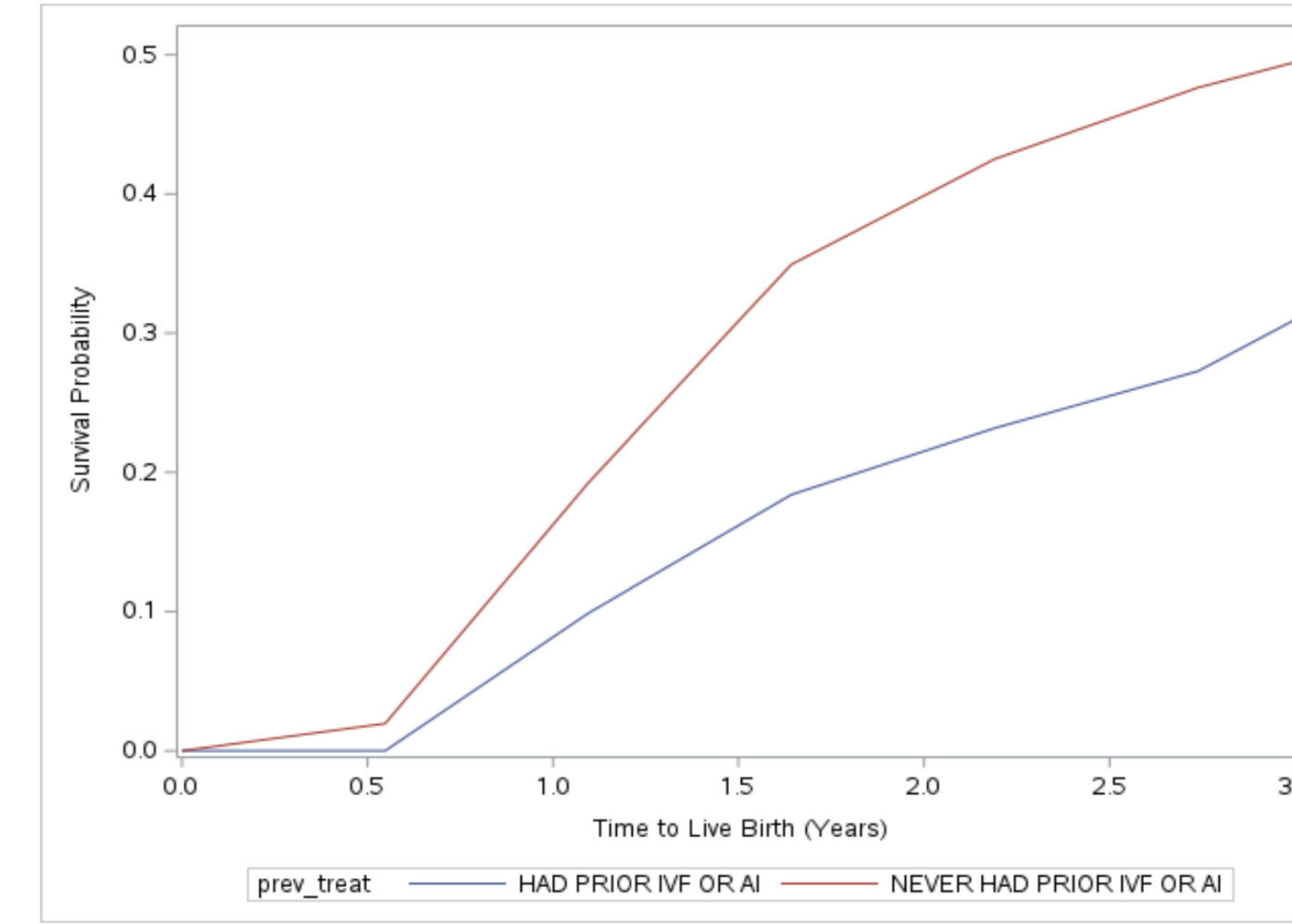
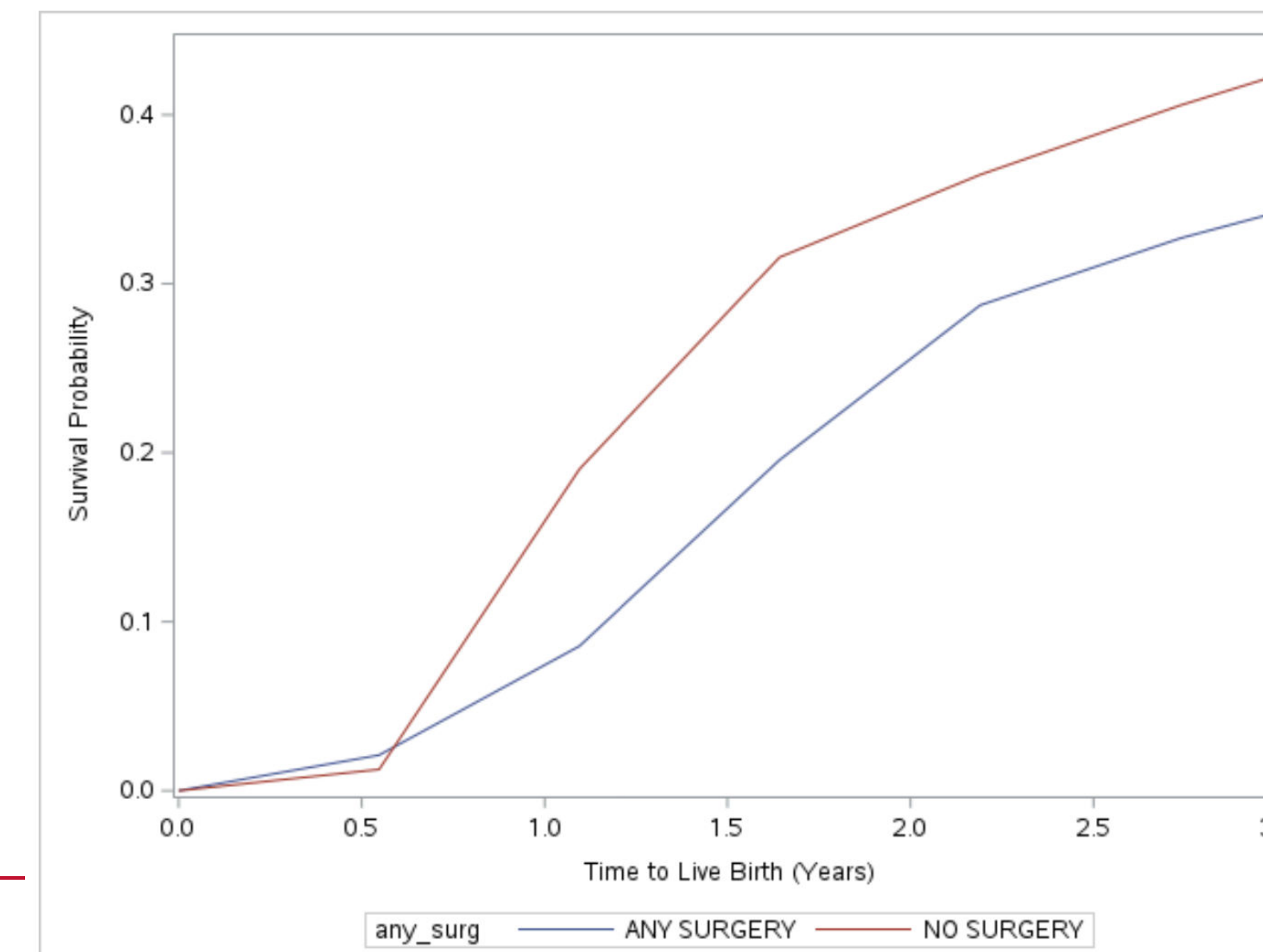


Table 2: Hazard ratios for time to live birth (Cox Model)

	HR	95% CI
No prior live birth	0.75	0.53, 1.07
Prior IVF or IUI	0.75	0.54, 1.05
Surgery (female)	0.55	0.35, 0.85
Woman's age 35y or older	0.72	0.56, 0.93
Prior time trying to conceive (>3, 1-3, < 1 y)	0.56	0.46, 0.67

Fig 5: cumulative probability of live birth by female surgery



Results

- Women age < 35 associated with higher proportion of live birth (Fig 1).
- Prior live birth associated with higher proportion of live birth (Fig 2).
- Shorter time trying associated with higher proportion live birth (Fig 3).
- Prior IVF or AI associated with lower proportion of live birth (Fig 4).
- Female surgery associated with lower proportion live birth (Fig 5).

Conclusions

- Woman's age, parity, time trying, and prior treatment all had impact on cumulative probability of live birth in the expected direction.
- Woman's surgery (mainly laparoscopy) had impact in an unexpected direction (lower probability of live birth with surgery).

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