

# Patterns of pcfDNA Ordering Between 8-10 Weeks Gestation by Provider Type

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## Background

- In November of 2024, a whole genome sequencing based prenatal cell-free DNA (pcfDNA) aneuploidy screening assay that utilizes fetal fraction (FF) amplification became clinically available at an early gestational age (EGA=8w0d – 9w6d gestation).
- Anecdotal data suggests that clinicians and patients are interested in early screening but it is unclear if, once available, clinicians would order screening at EGA.
- We characterized the types of healthcare providers ordering pcfDNA at EGA and identified which providers were more likely to shift their ordering from 10+ weeks gestation to EGA.

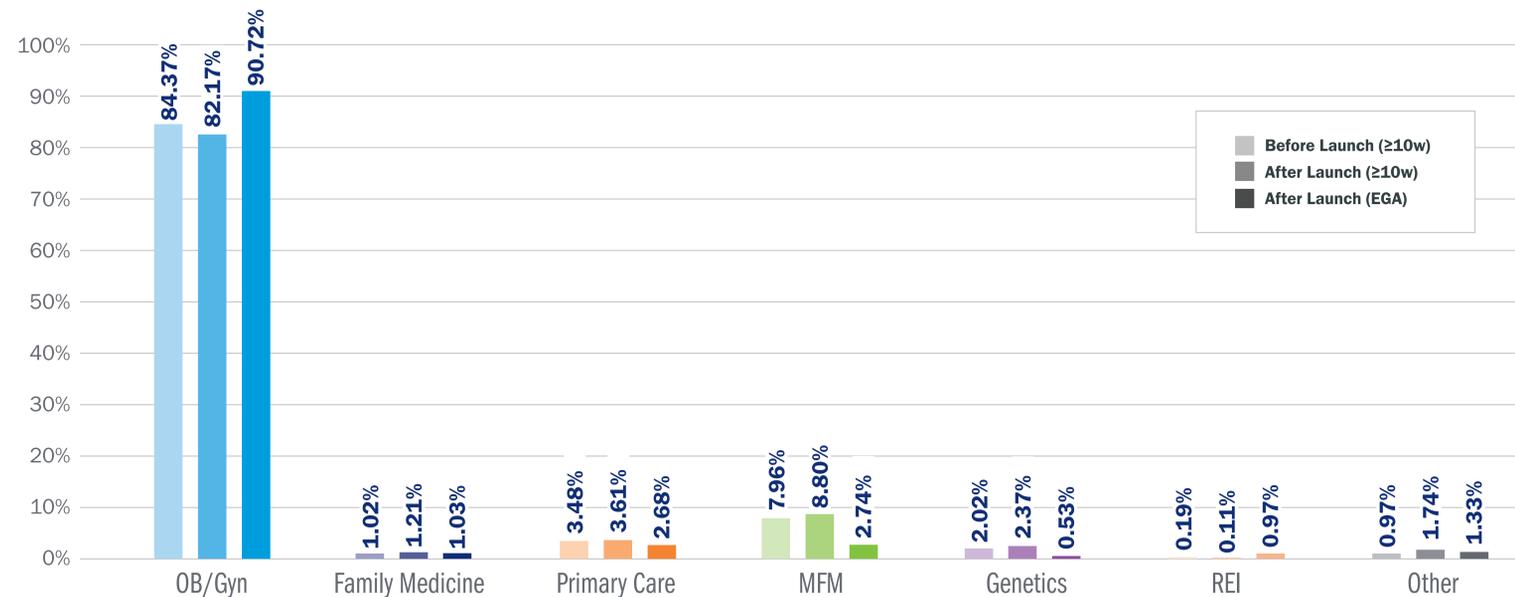
## Methods

- Retrospective analysis was completed on pcfDNA screening orders received between December of 2024 – July of 2025 in patients aged ≥18 years and compared to orders received in the prior 7 months.
- The total ordering volume of pcfDNA at EGA and the ratio of pcfDNA screening ordered at 10+ weeks vs at EGA were compared across provider types (**Figure 1**).
- The following ordering provider types were examined:
  - Obstetrics & Gynecology (Ob/Gyn)
  - Family Medicine
  - Primary Care
  - Maternal Fetal Medicine (MFM)
  - Genetics
  - Reproductive Endocrinology and Infertility (REI)

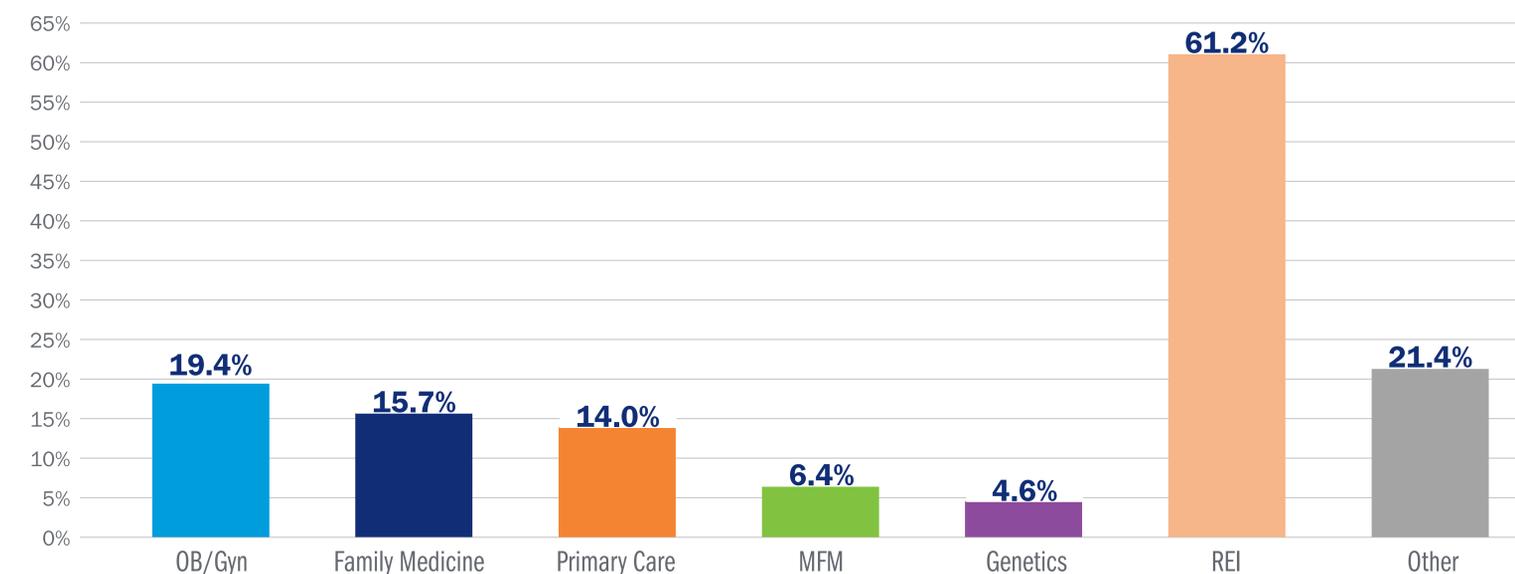
## Results

- Ob/Gyns had the highest volume of pcfDNA screens at EGA (**Figure 1**)
  - They accounted for 90% of all EGA screens ordered
  - This represented a ~1.1-fold increase in proportion of volume compared to prior to EGA
  - Nearly 20% of pcfDNA orders by Ob/Gyn providers were at EGA (**Figure 2**)
- Other provider types made up approximately 0.5%-2.7% of EGA orders
  - Approximately 5-15% of orders by Genetics, MFM, Primary Care, and Family Medicine were ordered at EGA (**Figure 2**)
- REI providers
  - Accounted for a very small proportion of pcfDNA orders both prior to and after EGA launch (0.19% and 0.97%)
  - Demonstrated the largest increase in proportion of EGA orders (>5-fold)
  - Had highest percentage of pcfDNA screens ordered at EGA at 61.2%

**Figure 1.** Percentage of total pcfDNA volume by provider type and gestational age



**Figure 2.** Percentage of total pcfDNA ordered at EGA by provider type



## Conclusions

- Ob/Gyns were the most common provider type ordering pcfDNA, including orders at EGA.
- At approximately 8-9 weeks gestation, REI providers typically transfer patient care to an Ob/Gyn and therefore do not often order aneuploidy screening for their patients. While making up a small proportion of total pcfDNA orders, REI providers showed a large increase in orders at EGA.
- Future research is needed to understand the utility of EGA to both REI and Ob/Gyn providers, as well as the impact on their practice and patients.

**Disclosures:** All authors were employees of Myriad Genetics, Inc. at the time of this study and received salary and stock as compensation.

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