



# MilkShaker™

An automated, physical therapist-backed wearable  
to prevent and treat mastitis in breastfeeding women.

*By Women, For Women.*





**Pricilla Dua**  
Mechanical Engineer



**Caitha Barr**  
OTR/L, CLT  
Certified Lymphedema  
Therapist at FemFirst in NYC



**Valentina Marini Fichera**  
Mechanical Engineer

**Our MilkShaker mission is to bridge the women's health gap, one device at a time.**  
We are committed to delivering affordable, effective treatments designed by women for women.



**Kavita Parikh**  
Mechanical &  
Sustainable Engineer



**Hope Hersom**  
Mechanical Engineer

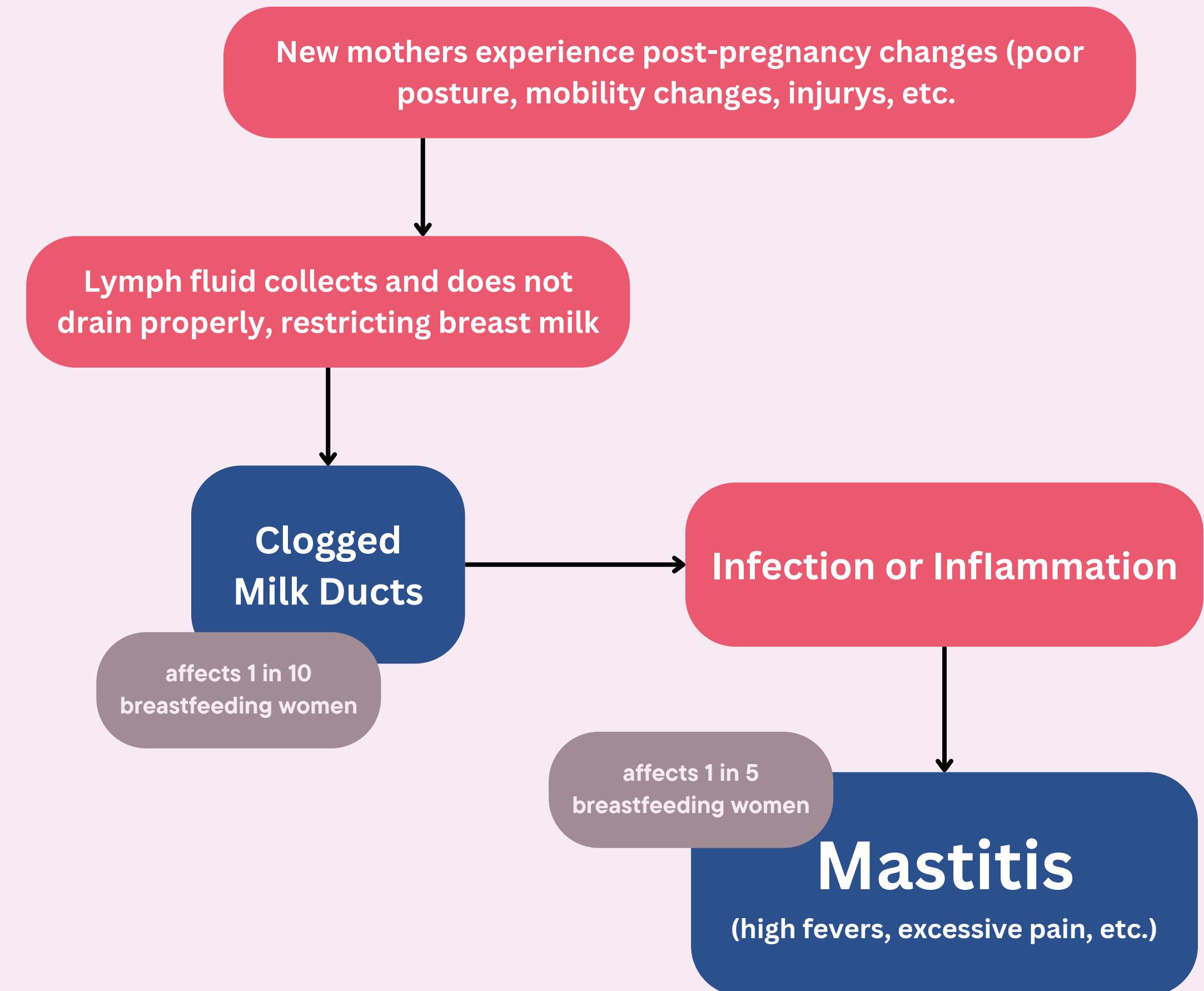


**Elise Yang**  
Mechanical Engineer &  
Computer Science

# 20.8 Million

**breastfeeding mothers globally struggle  
with clogged milk ducts and mastitis**

# Postpartum Changes Can Develop into Painful Mastitis.



# **Never heard of it? *Neither had we.***

*Without a reliable and accessible solution, mothers often suffer in silence, resorting to at-home remedies and following advice to continue breastfeeding despite the pain.*

***No one should have to choose between pain and caregiving. It's time for a rethink.***

Existing solutions—are **NOT always effective** and **no other product exists** that provides proper treatment.



**No Automation,  
Requires Training**



**Not Proactive  
or Targeted**



Certified Physical Therapy (MLD) is the **only proven treatment**, but remains **inaccessible and expensive...** even in Manhattan, only two trained PTs offer this massage.

Partnering with one such clinic, we asked ourselves: **how can we automate this process?**



**Enter: Milkshaker**

# MilkShaker™

Our solution, *both preventative and a treatment device*, targets the root cause of mastitis via light, directional massage proven to stimulate lymphatic fluid flow.

- ✓ Accessible
- ✓ Affordable
- ✓ Automated
- ✓ Proactive
- ✓ Breast-Specific



## Automated Professional Massage

The mechanical system performs a continuous, 30-minute professional lymphatic drainage massage based on quantified pressure, force, and direction from certified PTs at FemFirst.



## Washable, Removable Technology

Our mechanical massager sits within the breast pockets of the wearable vest-like garment, allowing for complete electronics removal for easy machine washing and part replacement.

## Portable & Hands Free

Our rechargeable technology allows for the mobility of new mothers. With 10 massages per overnight charge, new mothers can perform daily tasks without sacrificing their health.

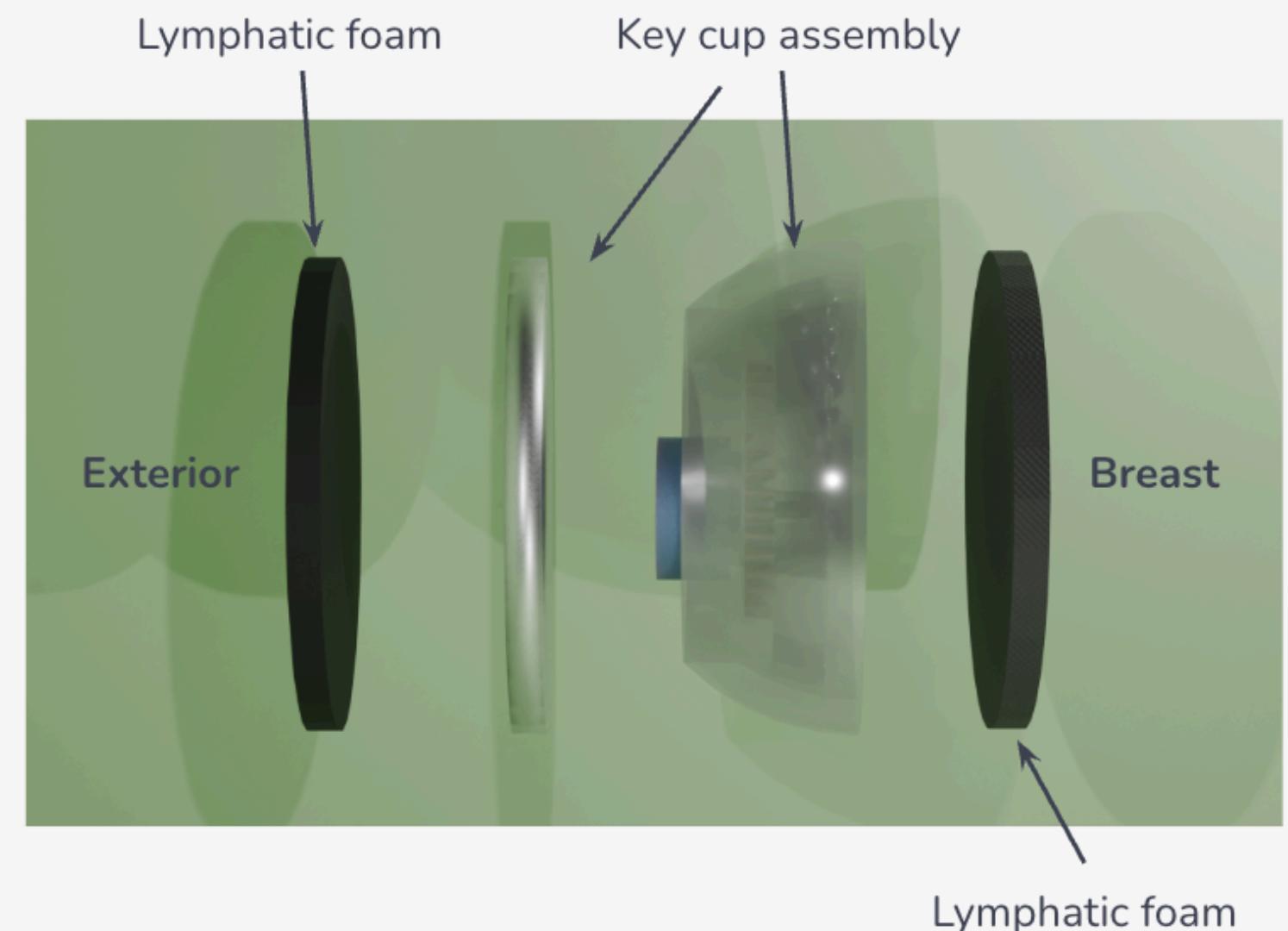
## Direct Pushing Massage

Certified lymphatic massages involve a light, pushing motion unlike deep massagers. Our proprietary mechanism is the only option on the market providing this science-backed massage.

**Automated + Direct  
Professional Massage**



**Portable, Hands Free +  
Removable Technology**





**Dr. Kristin Myers**  
Columbia University Mechanical  
Engineering, Mother



**Caitha Barr**  
OTR/L, CLT, occupational therapist  
and Certified Lymphedema Therapist



**Dr. Reena Parikh**  
MD, Obstetrics and  
Gynecology

**A product driven by professional and user input**



**Dr. Harry West**  
Columbia University Engineering  
Professor



**Fem First Health**



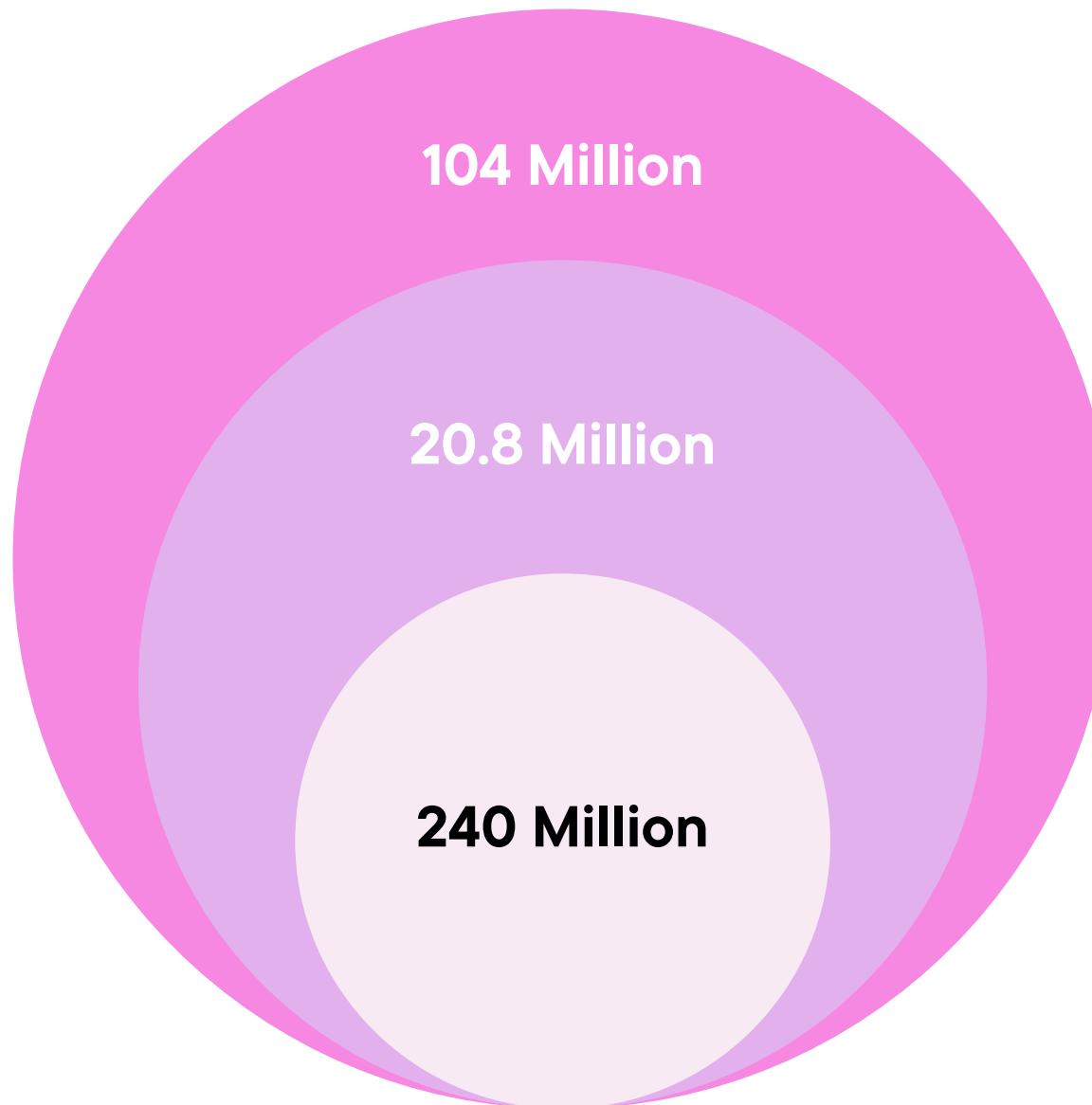
**Dr. Yevgeniy Yesilevskiy**  
Columbia University Mechanical  
Engineering Professor

# ... with a market to match.

*First year: ~1% penetration → \$2.4M/year*

*Five years: 10% penetration → \$24M/year*

*(At projected \$200 price point, equivalent to a standard pump.)*



## \* **Total Addressable Market (TAM):**

*Potential Annual Revenue: 20.8 Billion USD*

- Worldwide births: ~130M per year
- 80% attempt breastfeeding and face mastitis risk → 104M

## \* **Serviceable Addressable Market (SAM):**

*Potential Annual Revenue: 4.2 Billion USD*

- 20% experience clogged duct, likely to seek treatment → 20.8M

## \* **Serviceable Obtainable Market (SOM):**

*Potential Annual Revenue: 240 Million USD*

- Focusing on US/Europe Market → 1.2M
- (Likely to expand to other markets easily due to B2C approach)

# Accomplishments to Date

- \* Expert Input, Market Research, Initial Brainstorming
- \* Mechanical Design and Concept
- \* Physical Prototyping and User Input
- \* Workable Integrated Prototype

# Next Steps

- \* Patent Application
- \* Beta-Testing with FemFirst Patients
- \* Further Design Improvement

## Launch to Market



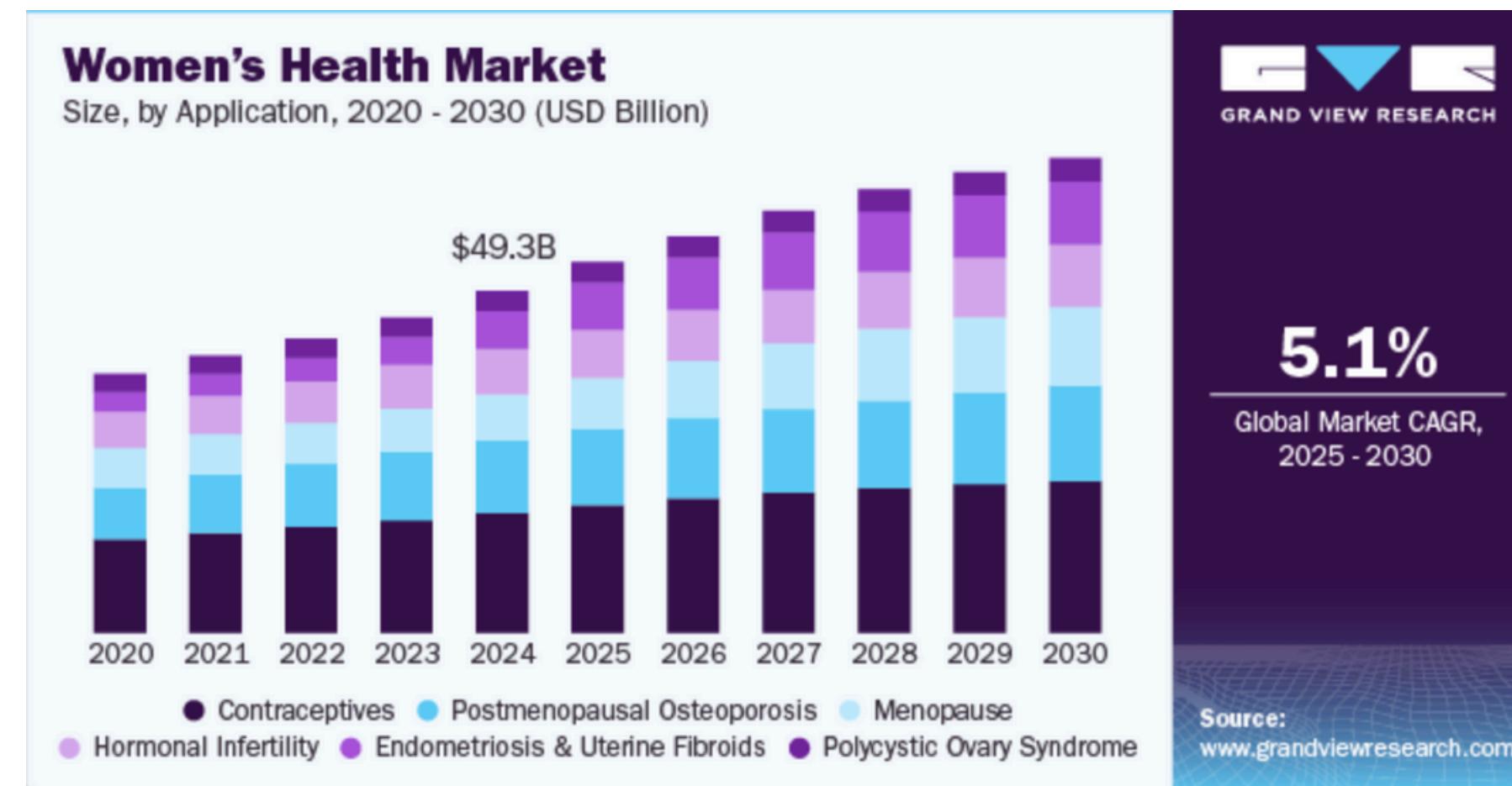
**FSA/HSA Eligibility**



**Insurance Coverage under  
ACA Breastfeeding Clause**

***Now is the time to get involved.***

# FemTech By Women, For Women



*There is a substantial investment opportunity in the relatively unexplored field of women's health and treatment.*

**We are ready to enter this lucrative and life-changing field, are you?**