



VivaHeart.AI:

Empowering Women Smokers with Early Heart Disease Detection

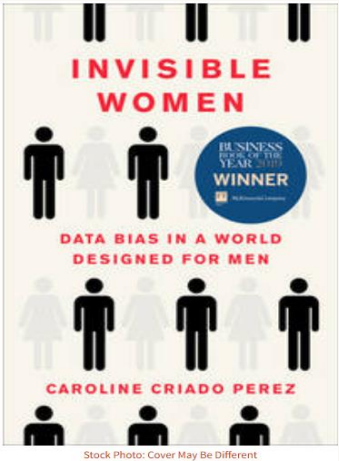
Targeted for women at risk, VivaHeart provides tailored, AI-driven insights to catch heart disease before it's too late.

Prepared By: Carmen Pena





Carmen Pena

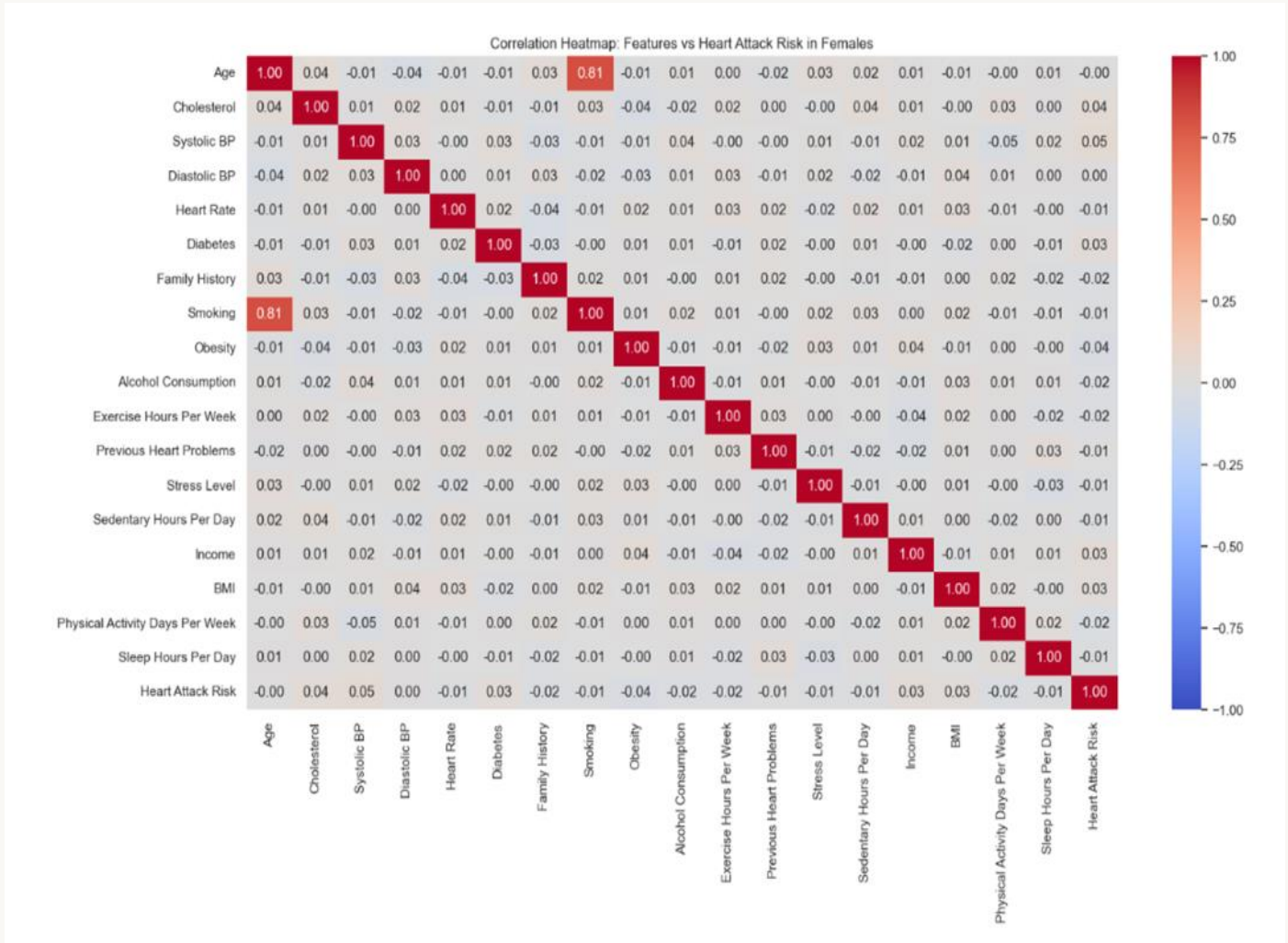


Idea: Currently, I am taking a technical course in Machine Learning and Artificial Intelligence using Python. When looking for datasets to create models, especially in healthcare, I have noticed that the majority of data available is for men.

I came across the book "[Invisible Women](#)" which describes how data bias leads to misdiagnosis, ineffective treatments, and potentially life-threatening situations for women, particularly in healthcare where symptoms and risk factors can differ significantly between genders.

For me this is very important to keep in consideration when building products that required AI solutions to follow the HHH framework. AI must be Honest, Harmless and Helpful.

Capstone Project Logisitc Regression Model:



The Urgent Need for Early Detection

1 High-Risk Demographics

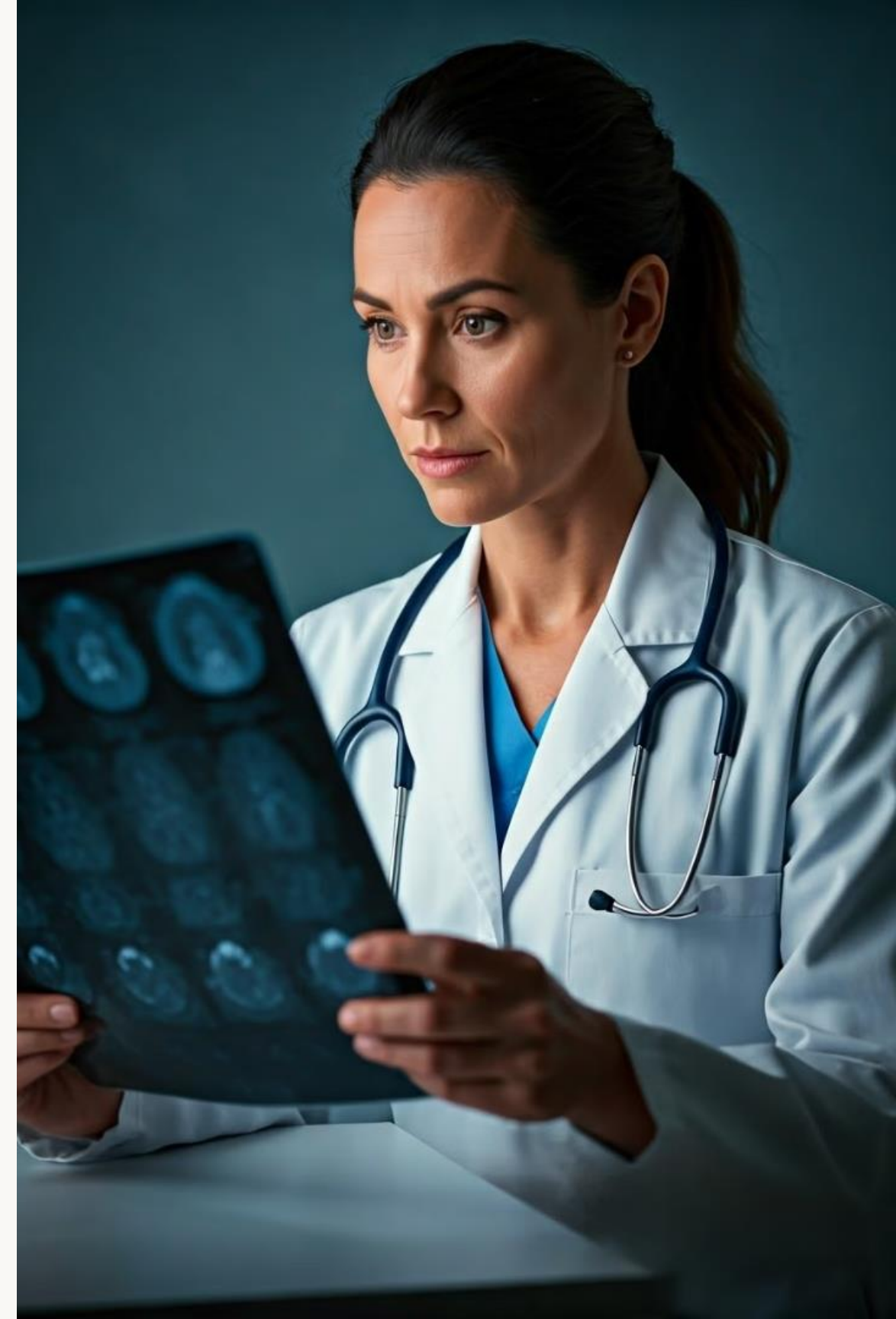
Women smokers between the ages of 20 to 60 years old are at a higher risk of developing coronary artery disease, yet detection in this group is often delayed.

2 Alarming Statistics

In Greece, Germany, and Spain, women smokers range from 20% to 27%

3 Diagnostic Challenges

50% of women's heart disease cases are misdiagnosed. Women face unique risk factors, due to hormonal changes, autoimmune conditions, and pregnancy-related complications.



Understanding Our Audience

Dr. Sarah Anderson

Experienced cardiologist in Athens, Greece. Struggles with diagnosing subtle heart disease in women.

- **30%-40%** of her time diagnosing female patients at heart risk, with around **10%-15%** of those cases potentially resulting in missed diagnoses due to the limitations of current diagnostic tools

Lucia Bianchi

58-year-old teacher and smoker. Concerned about heart health but lacks tailored diagnostic tools.

- **60%-80%** of long-term smokers report difficulty quitting due to stress and emotional triggers.

Key Challenges

40%-50% of female smokers feel medical advice is inadequate. **60%-70%** struggle with lifestyle changes.



The Heart of the Matter



Problem and Solution Needed

Doctors and female patients face challenges in diagnosing and preventing heart risk conditions in women who smoke.

VivaHeart.AI offers an advanced solution for early, accurate detection and personalized insights, supporting better heart health outcomes in women who smoke.

Introducing VivaHeart.AI

1

AI-Powered Analysis

VivaHeart.AI uses advanced AI to analyze CT scans, to detect subtle signs of heart disease. Compares smokers vs. Non-smokers CT scans inflammation of the arteries.

2

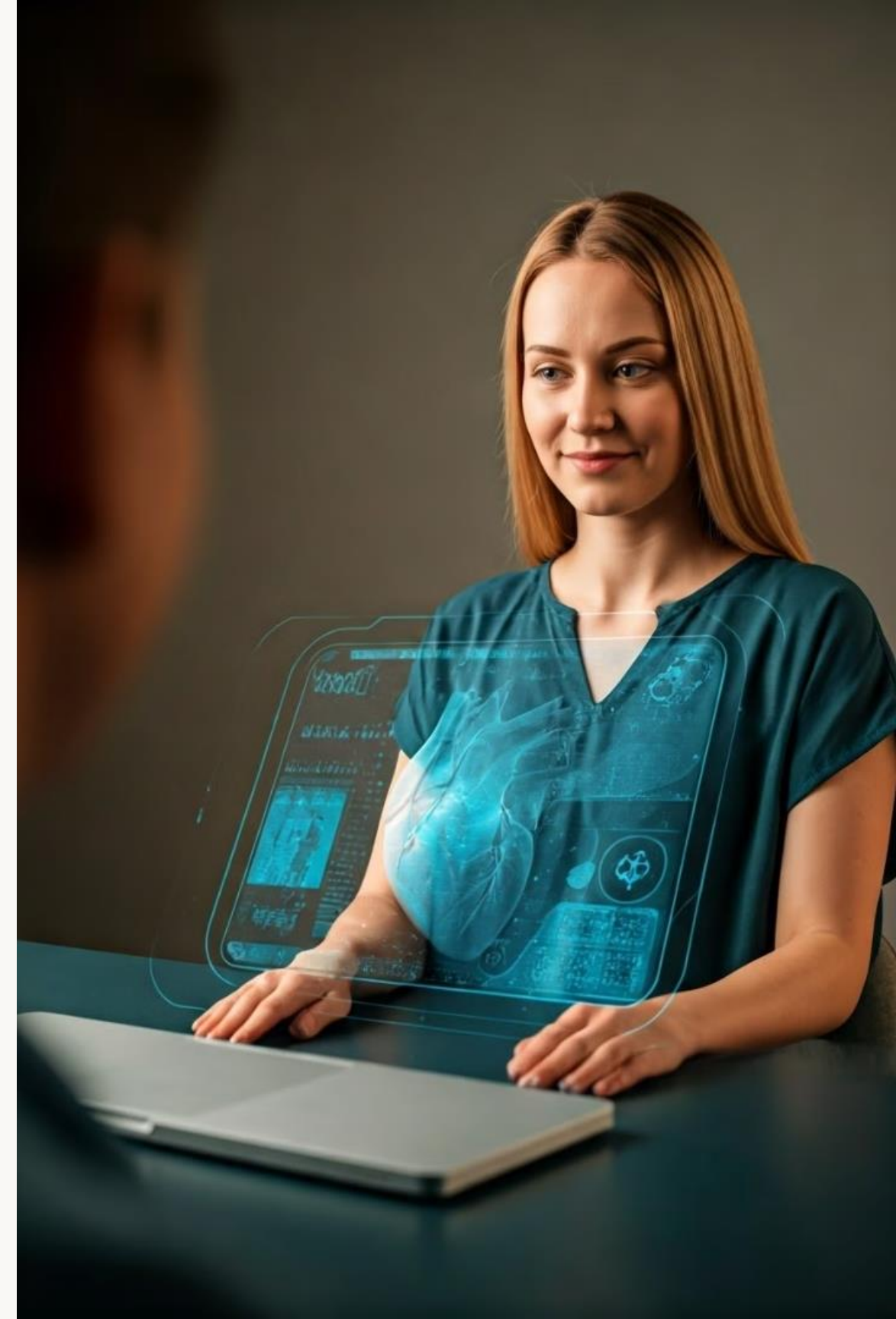
Personalized Insights

Tailored reports, risk score and provide actionable information for both patients and healthcare providers.

3

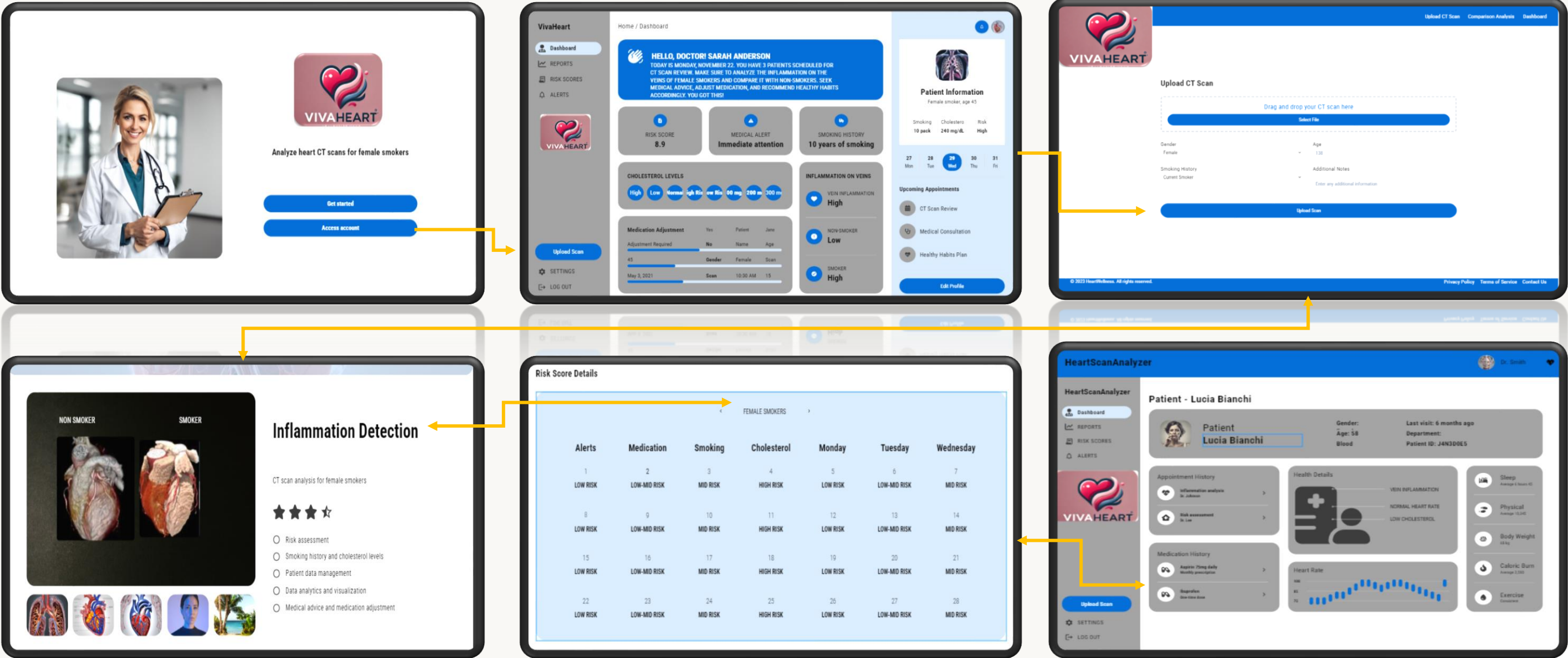
Early Intervention

Recommendations for support teams and health improvement.



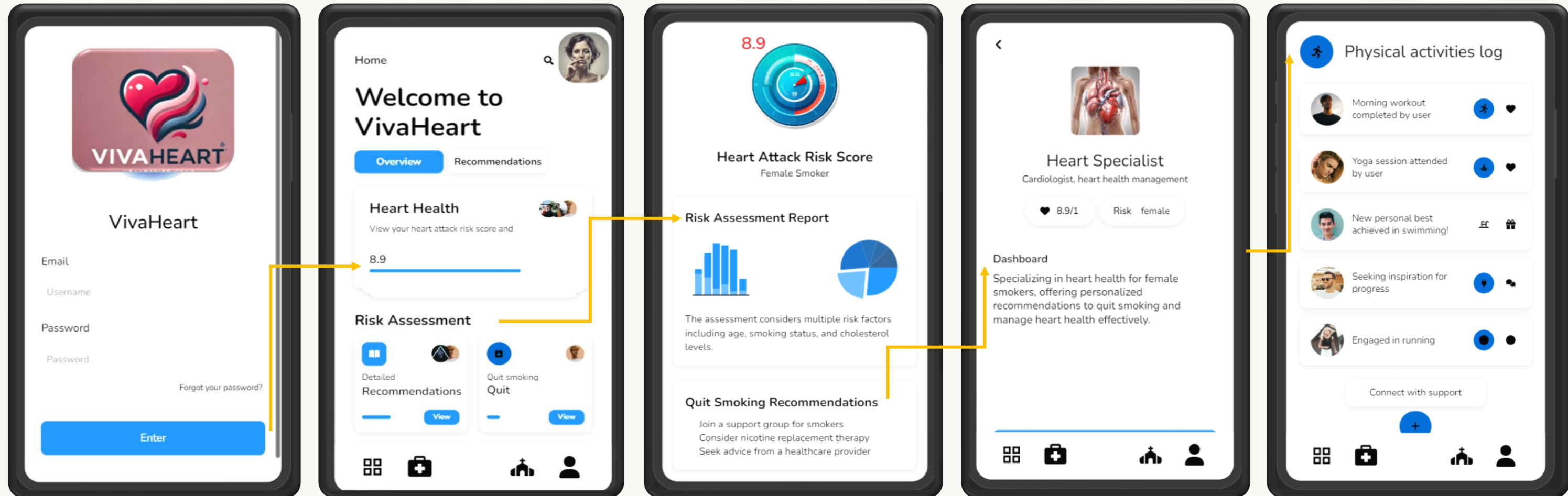
Prototype – Dr. workflow

[Link](#)



Prototype – Patient workflow

[Link](#)



Measuring Success

Metric	Target	Impact
Early Detection Rate	Increase by 30%	Timely interventions
Diagnostic Accuracy	Improve to 95%	Reduced misdiagnoses
Patient Satisfaction	Achieve 90%	Enhanced trust



VivaHeart Roadmap

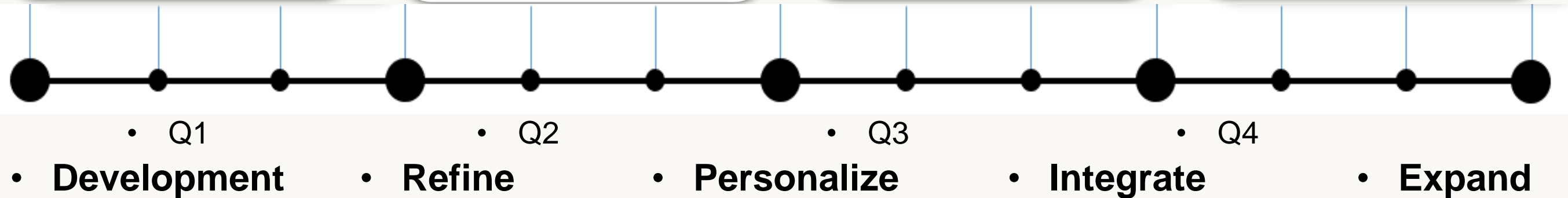


- Research and Conceptualization
- Refine Models
- MVP Development

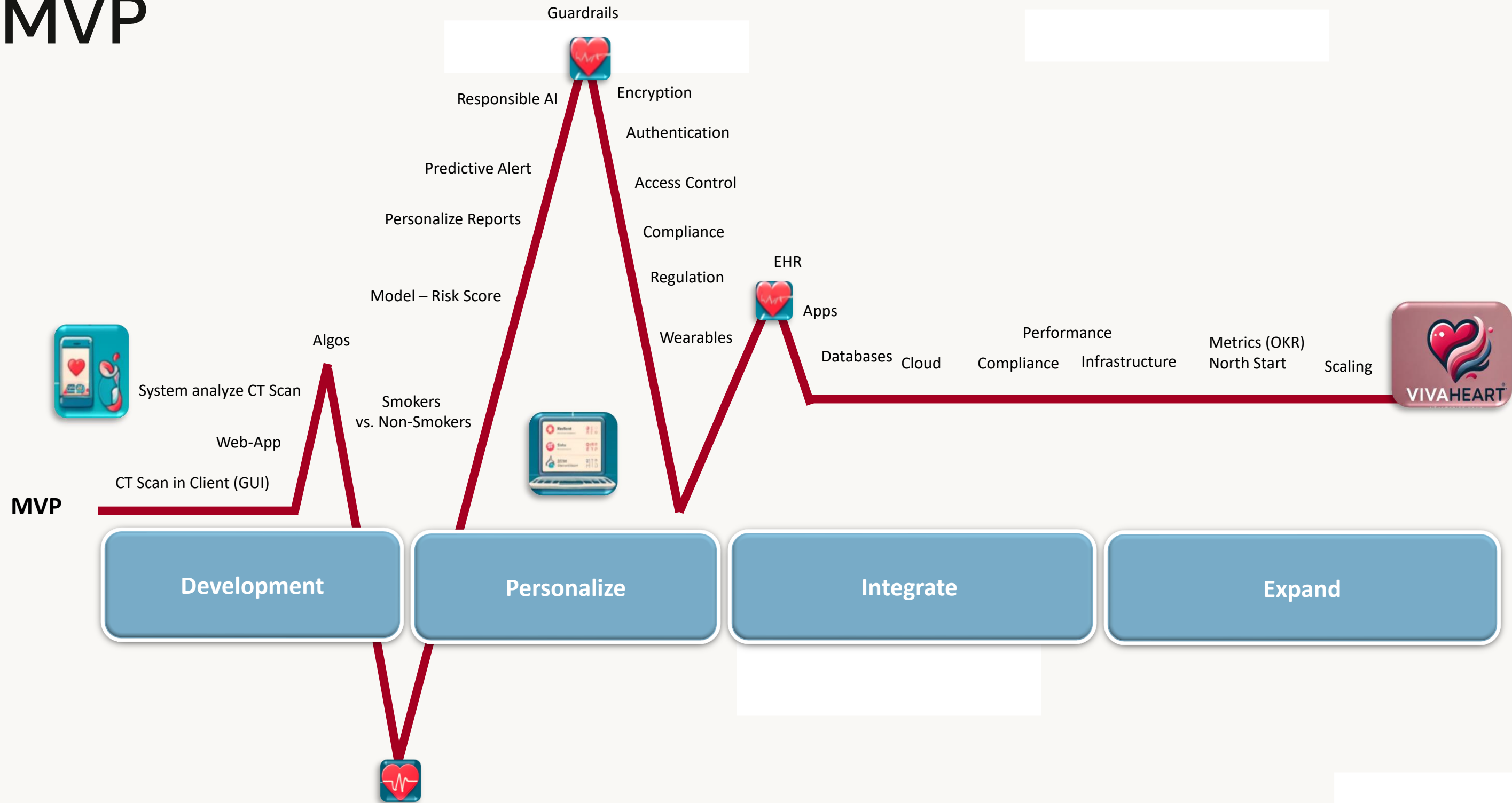
- Clinical Validation
- User Testing and Feedback
- Model Improvement
- Enhance Experience

- Responsible AI
- Market Collaboration with clinical artifacts
- Metrics (OKR)
- Trade-Offs

- Marketing
- Launch
- Reiterate
- Global Expansion



MVP





Join the Heart Health Revolution



Empower Yourself

Take control of your heart health with VivaHeart's personalized insights.



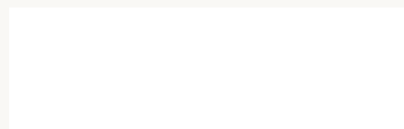
Transform Care

Healthcare providers, elevate your diagnostic capabilities with our AI-powered tool.



Join Our Community

Be part of a supportive network dedicated to women's heart health.



Thankyou!



Carmen Pena

**AI Product Manager | Machine Learning | Deep Learning | GenAI |
Driving Positive Social Change through Technology**

[LinkedIn](#)
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